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THE

BRITISH MEDICAL JOURNAL,

BEING THE

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED FOR THE ASSOCIATION BY

WILLIAM O. MARKHAM, M.D.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; PHYSICIAN TO ST. MARY'S HOSPITAL.

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1863

OFFICE OF THE BRITISH MEDICAL ASSOCIATION



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EDITED BY DR. MARKHAM.

LONDON: SATURDAY, JULY 4, 1863.

Remarks

ON

DEPLETION AND EXCESSIVE (?) STIMULATION IN VERY SERIOUS CASES OF ACUTE DISEASE.

BY

LIONEL S. BEALE, M.B., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; PHYSICIAN TO KING'S COLLEGE HOSPITAL.

CASE. "He stated that until 2 this morning (Thursday, May 7th) nothing could be more favourable than his patient's progress towards recovery... but at 2 this morning the general awoke with an acute pain in his side; and, although Dr. — hoped that it might proceed from neuralgia, he had the greatest apprehensions in regard to pneumonia.... Upon examination, it was pronounced that the symptoms were decidedly those of pneumonia. The doctor proceeded to cup and leech him; from that moment I gave up all hope of his recovery..... May 10th. *Consummatum est.* From the violent bleeding of Thursday last he never rallied." (*Times.*)

CASE I. W. B., a well made man, in good condition, nearly six feet high; of temperate habits (drinking from one to two pints of beer daily). General health good, but he had been much exposed to wet and cold. He was one of the corps of commissaires. Admitted into King's College Hospital on December 6th, 1862. Face very dusky. Tongue furred. Some dulness at lower part of right lung behind, with crepitation and rhonchus. Urine with a trace of albumen; plenty of chloride. On the third day after admission, there was dulness over lower half of right side of chest, back and front; crepitation; no bronchial breathing. Face very dusky; great distress of breathing; pulse 92; respiration 40.

He was ordered to be cupped to five ounces. Calomel gr. v; sulphate and carbonate of magnesia; liq. ammon. acet. \mathfrak{z} ss every four hours. Turpentine stupes to chest.

The following day, there was active delirium; no sleep. Heart's action feeble. Still no bronchial breathing. Pulse 92; respiration 52. To take \mathfrak{z} ss of brandy every hour and a half.

On the sixth day after admission, the whole of the right lung was dull, except for an inch below clavicle, where the breathing was very feeble. Bronchial breathing every where audible, except above third rib. He breathes entirely with left lung. Respiration 56; pulse 120.

On the seventh day after admission, the right lung was quite solid throughout, with the exception of a small portion quite at the apex, where breathing was scarcely audible. *Could not answer questions. Tongue dry and brown; face very dusky. Motions and urine passed under him. Muttering delirium.* Profuse sweating. Pulse 120; respiration 70. Calomel gr. iij, to be repeated in six hours. Chloric ether, ammonia, laudanum \mathfrak{m} xv, acetate of ammonia \mathfrak{z} ss every three hours. Brandy, 12 ounces in twenty-four hours.

Two days afterwards, loud crepitation was heard over the right lung. Dulness and bronchial breathing, as before. Expectoration commenced for the first time; sputa rusty.

Some might consider that this man ought to have been bled freely, in consequence of the low delirium; the motions and urine being passed under him; the great oppression of breathing, which was 70 in the minute; with congestion of the superficial vessels and profuse sweating. It is a fact that the treatment to which he was subjected did not prevent the resolution of the inflammation or destroy life by its effects upon the respiration; although this tall, strong man was breathing with one lung only.

CASE II. On June 4th, a well nourished, temperate man, aged 27, a joiner, was admitted into King's College Hospital with rheumatic pains in several joints and some uneasiness about the region of the heart. Pulse 116; respiration 31. Drachm doses of bicarbonate of potash were given, and one grain of opium every four hours. The day following, the urine was neutral, and contained an abundant deposit of triple phosphate.

Two days after admission, there was a distinct to and fro rub over the heart. Bronchial breathing was heard over a space as large as a five-shilling piece at the back of the left lung. Four ounces of blood were immediately taken by cupping.

The following day, the patient was lower, although he had been taking six ounces of brandy, as well as chloric ether and sal volatile. Pulse 120; respirations 44; the respirations very short and catching; and he could only articulate two short words consecutively.

About eight days after admission, the rubbing sound had disappeared. The cardiac dulness extended to an inch and a half to the right of the sternum, and as high as the third rib; dulness and bronchial breathing from the spine of the scapula downwards to the base of the left lung, extending round to the centre of the lateral region. Dulness and absence of respiratory sounds below the spine of the right scapula. Voice-sounds egophonic. No vocal fremitus. Breathing in front of both lungs good. Resonance. Pulse 132, feeble, but regular; respiration 43, very short, and but little air introduced at each effort. No delirium. He dozes occasionally. Urine about forty ounces; high coloured; abundance of chloride; numerous crystals of triple phosphate.

Treatment at this Period. Strong beef-tea, two pints.

Brandy, half an ounce every half hour—twenty-four ounces in twenty-four hours.

Dover's powder, gr. x, every four hours:—six grains of opium in twenty-four hours.

Solution of acetate of ammonia, \mathfrak{z} ss. Sal volatile, \mathfrak{z} ss. Chloric ether, \mathfrak{m} xv every two hours.

An ointment, composed of strong mercurial ointment \mathfrak{z} j, and powdered opium gr. x, to be smeared on lint, and kept constantly applied to heart.

Turpentine stupes. Dry cupping occasionally.

This treatment was continued without variation for seven days.* During this time there had been no delirium. The cardiac dulness had returned to its normal extent by June 16th. The bronchial breathing at the side of the chest had been replaced by the ordinary

* The brandy was kept up at twenty-four ounces for eleven days.

respiratory sound. The physical signs at the back of the chest were the same. Pulse 120; respiration 32. There had been free sweating and moderate purgation. Urine about fifty ounces; large deposit of triple phosphate. During the last two or three days the man has been able to read. He has not at any time felt as if he had taken brandy in any quantity.

There is not the slightest doubt that the man swallowed all that was ordered for him. In seven days he consumed fourteen pints of beef-tea, *eight pints and a half of brandy*, forty-two grains of opium, besides liquor ammoniac acetatis, sal volatile, and chloric ether.

At the commencement of the treatment, there seemed little hope of recovery. After it had been continued for seven days, the patient's state was most hopeful.

The patient was most carefully watched, and his condition steadily but very slowly improved from day to day.

The stimulant was *very gradually increased* as follows on different days: 4 oz., 6 oz., 8 oz., 10 oz., 15 oz., 18 oz., 24 oz.

It is certain, that neither the very rapid respiration, nor the pneumonia, nor the pleurisy, nor the effusion in the pericardium, were augmented by the brandy.

It is certain, that the respiration diminished in frequency, that resolution of the pneumonia commenced, and that the fluid in the pericardium was absorbed under this treatment.

It is certain, that the brandy did not produce intoxication.

It is certain, the treatment did no harm; but some may hold the opinion that it exerted no influence whatever, and that, if less decided measures had been taken, the result would have been the same.

Some of those who saw the case at the beginning of the week thought that the man would die under any circumstances; and considered at the end of the week that he would have died but for the extreme measures taken. This, it is true, is but an opinion.

That a man suffering from acute rheumatism, complicated with *very considerable effusion in the pericardium, pneumonia of the lower lobe of one lung, and pleurisy on the opposite side*, with a pulse of 120 to 132, and respiration from 30 to 70, *lived for seven days* while subjected to the above treatment, is a fact.

Although the arguments advanced in favour of depletion in acute inflammations and fevers have again and again been refuted, the idea that blood should be taken in inflammatory diseases still seems to be acted upon. If a patient has too much blood for the requirements of the system, or if the vessels of a particular part are over distended, it is obvious that general or local bleeding to a moderate extent may be of advantage to the patient; but, undoubtedly, there still exists an impression that depletion is the right treatment to be pursued to combat inflammation.

It seems to be the opinion of some practitioners that pneumonia should be treated by depletion; nor is the general condition of the patient always considered. Attention is directed to the disease solely; and blood is taken because the practitioner believes that early bleeding will stop the spread of the inflammation, if not cause resolution of that already set up.

The old principles are still to some extent be-

lieved and timidly acted upon; but few of those practitioners who hold that bleeding will cut short inflammation will be inclined to exhibit consistency in carrying out their principle. Some will bleed *because* there is pneumonia, and may deplete again *because* the pneumonia has increased; but no one will in these days bleed again and again if the disease continues to advance; nor would any one bleed very largely in what appeared to be a hopeless case from the first, as would have been the practice formerly.

The old theory of the nature of inflammation still continues; and the old practice based on it, although long since proved to be erroneous, is still acted upon to a limited extent; and both theory and practice prevent us from observing clinical facts without prejudice. Though forced to give up the old system of depletion, there are comparatively few practitioners who believe that when a large amount of lung is hepatized, and the patient breathing sixty or seventy in a minute, that it is right to give large quantities of stimulants. There are few who can completely abandon the notion that inflammatory processes are excited by stimulants—that to give stimulants in inflammation is to add fuel to the fire.

Nevertheless, it is admitted in practice that no severe case of pneumonia could be saved by active depletion; for it is known that time is required for the absorption of the matter occupying the air-cells of the lung. In a very severe case, the most momentous subject for consideration is how to keep the patient alive long enough for the process of absorption to take place; not how the *inflammatory process* may be cut short, reduced, or removed. For this purpose a line of treatment the very opposite to depletion must be adopted.

Many cases prove that, what would be called by many, excessive stimulation does not *prevent* the rapid resolution of pneumonia. Stimulants do not increase inflammation, nor do they prevent absorption. Although the whole of one lung may be solid, excessive stimulation does not increase the rapidity or embarrassment of the breathing. In extreme cases, by excessive stimulation, life may be prolonged for a sufficient time to allow of the reabsorption of the matters effused. Disease is not *cured* by stimulants; but the patient may be kept alive long enough to get well. Here and there a life may be saved by giving as much stimulant as is possible; but by carrying the opposite system to extremes, death is a necessary consequence.

In desperate cases of fever, pneumonia, rheumatic fever, and in other conditions where there is intense exhaustion, stimulation may be safely pushed to the utmost extent possible.

I shall not now discuss *how* stimulants in very large quantity influence disease, but shall, in conclusion, beg permission to direct attention to certain clinical facts which have been observed in many bad cases of pneumonia and rheumatic fever, placed under the influence of large quantities of stimulants (*eighteen ounces of brandy and upwards in twenty-four hours*).

1. The pneumonia does not extend.

2. The embarrassment of respiration is not increased, nor is the breathing increased in frequency.

3. The inflammatory products are absorbed, and free excretion goes on.

4. The pulse is not increased; but diminishes in frequency, and increases in power.

5. Delirium is not caused, but may be prevented from occurring; or if present, may diminish or cease.

6. The tongue may remain moist or become moist, and the fever diminish while a patient is taking *twenty-four ounces of brandy in as many hours.*

Original Communications.

CASES OF DIPHTHERIA.

By G. M. HUMPHRY, M.D., F.R.S.: Surgeon to Addenbrooke's Hospital, Cambridge.

HITHERTO there has been no epidemic of diphtheria in Cambridge, though isolated cases have occurred from time to time. The following are some of those which I have seen.

CASE I. *Albuminuria and Paralysis following.* An undergraduate, tall, thin, and not strong, coming from Norwich in the autumn of 1860, caught cold and had rather severe diphtheria. The tincture of the sesquichloride of iron, wine and beef-tea, gargling and sponging the fauces with solution of chlorinated soda, constituted the treatment. The throat gradually cleared; but he remained weak, and returned home. There the urine became loaded with albumen, almost solidifying under heat, and was of low specific gravity. Partial paralysis of all the voluntary muscles supervened; he could scarcely stand; could not button or unbutton his clothes; deglutition was slow and difficult, and articulation hesitating and imperfect. Most serious apprehensions were entertained by his friends and medical attendant. I advised his immediate removal to the seaside in the south of England, so that he might be taken out into the air several times a day. He went to Hastings, and lived almost in the open air. Improvement began at once. He slowly regained voluntary power and general strength; the albumen decreased in the urine, and finally disappeared; he returned to Cambridge in the spring, and has been well ever since.

CASE II. *Tracheotomy affording temporary Relief.* Miss —, aged about 15, rather delicate, with large tonsils, had severe diphtheria, without apparent cause, in the summer of 1862. The swelling of the tonsils, fauces, and surrounding glands, with thick, dirty white deposit upon the fauces and adjacent parts, caused so much difficulty of breathing that we were meditating removal of the tonsils or tracheotomy. I thought removal of the tonsils, which met in the middle line, would afford some relief; perhaps as much as opening the trachea, because the impediment was evidently in the isthmus faucium. However, the difficulty of breathing had in two hours increased so greatly that it was desirable to resort to the more sure method, if to any. Accordingly, I opened the trachea, and placed a tube in it. At the time of the operation, the breathing was greatly embarrassed, the lips quite blue, and she was scarcely conscious. Chloroform was administered, and did not increase the dyspnoea. After the operation, the breathing was easier; colour and consciousness were restored; she slept; and, for twenty-four hours, hopes of recovery were entertained. These were soon disappointed by a recurrence of the dyspnoea, now depending evidently upon effusion into the bronchial tubes; and shreds and flakes of dirty membranous lymph were occasionally coughed up through the tube. She died about forty hours after the operation.

CASE III. *Removal of Uvula; Temporary Relief.* Mr. —, aged 25, was in the habit of going before breakfast

to his garden, and mixing some very fœtid materials composed of urine and other ingredients, for manure. The emanations from this used to "stick about his throat" for some time; and, in July 1862, he was attacked with severe diphtheria. He was so nearly choked that he longed for some operation to relieve him; and I saw him with his medical attendant. There were swelling of the fauces, and a thick foul membranous coating upon them and the soft palate. The uvula was much enlarged and coated, and, nearly filling up the isthmus faucium, seemed to be the chief cause of the dyspnoea. I accordingly removed it; and the relief given was so great, that his friends considered the danger was gone; he took food well, and even went down next day into his shop. That night he became restless, and breathing was quicker; and the following day he was weak; respiration was noisy and much embarrassed, apparently from effusion into the bronchial tubes. He died in the night.

CASE IV. *Affecting the Larynx and Bronchi only; Temporary Relief from Tracheotomy.* Master —, aged 14, came home from school in March 1862 with slight sore-throat. This subsided, but was followed by difficulty of breathing. Leeches, aperients, etc., were employed by the medical man; but, the symptoms not diminishing, I saw him. There was nothing abnormal in the throat; but he had cough, thickness of voice, and difficult noisy inspiration; the noise indicating that the difficulty was in the larynx. Slight tenderness about the larynx. The symptoms not being very urgent, we agreed to try soothing applications, in the form of inhalations and external application, and free mercurial inunction. In twenty-four hours, the dyspnoea had rather increased, and he was weaker. Accordingly, I opened the trachea, and placed a tube in it. For a few hours he was relieved, and promised recovery. Soon, however, he became restless again and weak, with increasing dyspnoea; and died two days after the operation. We found the mucous membrane of the larynx, and of the trachea and bronchial tubes, large and small, coated with a thin layer of dirty false membrane, not like that in ordinary croup, but similar to that which I have seen in other cases of diphtheria.

CASE V. *Affecting Nose, Fauces, Eye, and Pericranium.* An infant, two months old, had what appeared to be severe cold in the nose. This caused a good deal of difficulty in breathing; but a violent convulsive fit was the first serious note of alarm. I saw the child then with the gentleman in attendance. The nostrils were blocked up by whitish, tenacious, semimembranous secretion, which was evidently of diphtheritic character; and, in a day or two, there was a thin film of the like substance upon the edge of the palate. By careful syringing, the nostrils were cleared and the child breathed better; the throat also improved, and she took food pretty well, so that we had good hope of recovery. The improvement, however, did not continue; and after a few days the eyelids of one eye were lined with a yellowish white film, which, in spite of careful removal and frequent syringing with water and mild astringent solutions, spread over the rest of the conjunctiva; the cornea became opaque, and gave way. A periosteal swelling was observed upon the forehead, followed by others upon the temple and occiput. The coating reappeared upon the fauces; the child refused its nourishment, and died two weeks from the commencement of the attack.

CASE VI. *Hemiplegia Supervening.* Master —, aged 11, in a neighbouring village where diphtheria was prevalent, was attacked in March 1863. When I saw him a few days afterwards, on March 7th, the false membrane was beginning to separate from the fauces, under frequent gargling with bichlorate of soda and liberal diet prescribed by the surgeon in attendance. He had much pain in swallowing; and there was some difficulty in inducing him to take food. He appeared, however, to be

going on well, and the throat was quite clear, when, about a fortnight from the commencement of the attack, he became uneasy in the head, and, during the night, lost the use of the right arm and leg. The difficulty of swallowing was increased, and the speech was affected. He gradually recovered the use of the limbs, but had occasional uneasiness in the head, with somewhat of a wild expression and wandering. There was continued difficulty in swallowing; and, now and then, a violent fit of choking, as though some particle of food found its way into the larynx. It was not, however, clearly made out that this actually happened. I saw him on April 16th, after an interval of several days, and found extreme dyspnoea, caused evidently by mucus in the air-passages which he was unable to expectorate. He died that night. On *post mortem* examination, the fauces and larynx presented nothing very peculiar; the mucous membrane was smooth and pale. The trachea and bronchi, large and small, contained a great quantity of frothy mucus; but there were no other evidences of inflammation here or in the lungs. In the superficial part of the left cerebral hemisphere, corresponding with the upper edge of the temporal bone, was a small suppurated spot, with softening of the adjacent brain-substance.

CASE VII. Sudden Effusion into Bronchi Supervening. An undergraduate caught cold, and had acute inflammation of the left tonsil, with a diphtheritic patch upon it, and swelling of the neighbouring absorbent glands and adjacent parts. The inflammation was so acute and painful, that I directed a few leeches to be applied, which gave some relief. The membranous deposit spread over the throat and palate, and then gradually cleared off; but the pain in swallowing increased. He could be persuaded to swallow only milk, and very reluctantly gargled or permitted any cleansing of the throat. Still, he held his ground for a fortnight; was able to walk about his room; and went for a drive; so that we hoped he would gradually get better. There was no indication of affection of the trachea or lungs, till one night he was attacked with cough, bloody expectoration, and dyspnoea, with râles all over the chest. In the fluid expectorated, we found some branching strings of tenacious mottled substance, which were evidently casts, in lymph, of the air-tubes. He could not swallow anything; and rapidly sank and died in the middle of the next day.

CASE VIII. Anasarca and Albuminuria quickly supervening upon Slight Diphtheria. Miss —, aged 3, a healthy girl, had sore throat, with small white patch upon the left tonsil, and swelling of the neighbouring absorbent glands. The white patch excited the apprehension of the surgeon, because it remained, and returned when removed. This was the state when I saw her a few days after. There was very little redness or swelling; but general weakness and unwillingness to swallow. At first, she improved a little under steel, with beef-tea, etc.; but then relapsed. The white patch increased, and the breath became foul. At the same time, albumen appeared in the urine; general anasarca, prostration, and dyspnoea, quickly followed; and she died a fortnight from the commencement of the attack.

In each of Cases No. 2, 3, and 4, the operation prolonged life twenty-four hours. The time thus gained may be dearly purchased by tracheotomy; but is well worth the minor operation of removing the uvula (as in No. 3) or tonsils. The difficulty of breathing is often at first entirely due to the impediment caused by swelling of the fauces; and the question of affording relief by removal of the uvula or tonsils is, in some cases, well worthy of consideration. It is easily done, is unattended with danger, clears the way for the passage of air, so diminishing the labour of breathing, and has the advantage of lessening the amount of foul surface in the throat. It may sometimes answer instead of tracheotomy. I believe that in Case II, the removal of the ton-

sils would have given as much temporary relief as was afforded by tracheotomy. Moreover, we must not forget that the irritation caused by the presence of a tube in the trachea may predispose to the extension of the malady in that direction. Nevertheless, the experience of others show that in a few cases life has been saved by tracheotomy.

The occurrence of albuminuria and anasarca have been repeatedly observed by others; and afford an interesting link between diphtheria and scarlet fever; that of general paralysis (as in Case I) has also been observed, not unfrequently, and has often been recovered from. Hemiplegia (Case VI) is more rare, and is a more alarming symptom as it commonly indicates a definite lesion of some part of the brain.

The affection of the larynx and bronchi, with scarcely any warning in the throat (as in Case IV), has been observed by others. It is very deceptive. In treating that case, we had no idea that we were dealing with diphtheria. The true nature of the disease was revealed to us only by the *post mortem* appearances. Further experience will probably show the disease commencing at various parts of the body, or modifying the inflammatory affections of various parts.

I have not met with a description of diphtheria of the eye (No. V); though the condition has probably been observed by others.

The extension of the inflammation into the trachea and bronchi, and the consequent effusion of the diphtheritic membrane, or of mucus into them (Cases II, III, IV, VI, VII), is one of the most fatal tendencies of this formidable malady.

Cases of diphtheria were occasionally met with in former years. The following took place in the Norwich Hospital, while I was a student there in 1837. A man, aged 24, underwent amputation in the thigh in consequence of acute suppuration in and about the knee, following upon a contused wound. He was in a low, feverish state, and had slight sore throat, when the operation was performed. This increased, was attended with cough, dyspnoea, and delirium, and he died, apparently suffocated, two days after the operation. The soft palate, pillars of the fauces, and part of the pharynx, were covered with a distinct layer of dirty lymph adhering to the surface. The mucous membrane of the larynx, trachea, and bronchi, even to the smallest branches, was also coated with a layer of lymph. The œsophagus was quite free.

THE TREATMENT OF THE EARLY STAGES OF HIP-JOINT DISEASE IN CHILDREN.

By WILLIAM PRICE, M.D., Margate.

Having held the appointment of surgeon to the Infirmary for Scrofulous Children at Margate for some years past, I have enjoyed unusual opportunities of observing the varied phases of hip joint disease occurring in children of strongly marked strumous habit. The object of the present notice is not to adduce a new method of treatment, but to direct attention, through the pages of the BRITISH MEDICAL JOURNAL, to the undoubted superiority of one plan of treating the earlier stages of morbus coxæ over all others; viz., the continued employment of the long splint.

Many provincial surgeons now discard the long splint altogether in the early stages of hip-joint disease, giving preference to splints made of gutta percha, leather, or pasteboard; carefully moulded over the buttock, reaching somewhat above the ilium, and extending down the upper half or two-thirds of the femur. They argue that the patient is thereby enabled to take early out-door exercise on crutches, and is saved a strict confinement to the wards of a hospital, which the long splint necessarily entails. That much benefit is derived from the gutta-

percha and leather splints during a more advanced stage of the disease, no one will deny. But how, it may reasonably be questioned, can perfect immobility of a hip-joint be maintained by means of a splint which does not equally prevent movement of the knee and ankle joints of the same limb?

The long splint should reach from midway between the axilla and crest of the ilium to a few inches beyond the external ankle. It is best adapted while the patient is under chloroform; and, no matter how severe the previous pain or muscular contraction about the joint, speedy diminution of the more urgent symptoms, as a rule, ensues. The length of time required for its employment must necessarily vary in each particular case. I have now in the infirmary two children side by side, one having worn a long splint for nineteen weeks, the other but five weeks; in neither case does any trace of original mischief now exist.

In many old standing cases of hip-disease coming under my notice, I observe marks of previous severe counterirritation, produced by moxas, issues, and the like. I have long ago satisfied myself that these measures are not productive of any appreciable benefit, and in my own practice abstain from any external application save the actual cautery. This invaluable agent, applied repeatedly by dotting over the integument of the buttock and surrounding parts (not allowing, however, the heated iron to remain sufficiently long upon the surface to produce an eschar or slough), cannot be too highly extolled, more especially as a means for relieving the pain dependent upon commencing ulceration of the cartilages; the relief thus afforded being singularly marked.

The happy results attending the above plan of treatment in my hands induce me to believe that an earlier discrimination of the first symptoms of hip-joint disease (as a rule, not difficult to recognise), the sedulous employment of a long splint, together with strict attention to a well selected diet, would go far to diminish, if not the mortality, at least the deformities, resulting from advanced stages of a malady so common at all ages and amongst all classes of society.

Transactions of Branches.

SHROPSHIRE SCIENTIFIC BRANCH.

COMPOUND COMMINUTED FRACTURE OF TIBIA FOLLOWED BY
TETANUS: DIVISION OF INTERNAL SAPHENOUS
NERVE: RECOVERY.

By SAM'L. WOOD, Esq., Senior Surgeon to Salop
Infirmary, F.S.A., etc.

[Read Feb. 13, 1863.]

THE cases of recovery after an attack of traumatic tetanus are so rare, that anything which adds to our stock of resources in treating this fearful malady is interesting and valuable.

In the winter of 1859-60, the cold was intense, for some days below zero, and for a long time only a few degrees above it. On December 14th, 1859, William P. Claridge, Esq., of Pitchford Park, aged 30—of strong muscular development, moderate in every respect, accustomed to hunt two or three times a week, and consequently in vigorous health—was standing upon a ladder placed against a rick of wheat, for the purpose of getting some rats out of the thatch, and when he was about eight or nine feet from the ground a rat bolted in his face. This startled him; he shrank back, overbalanced himself, and, to save falling, jumped backwards from the ladder. He thought his right foot had sunk into a hole in the ground; but on attempting to rise, he

found his leg broken, the bone protruding through his stocking and trousers, and the blood streaming from the wound. He lay upon the cold ground for nearly an hour, whilst a conveyance was being obtained to take him home, from which he was distant about two miles.

On examination, when put to bed, I found a serious compound comminuted fracture of the right leg, and the tibia and fibula protruding from the wound. Several fragments of bone were removed, and the wound had to be enlarged to reduce the fracture, when a piece splintered up the tibia three inches was found detached, and with some little difficulty removed. The limb was placed on a sling splint rolled up, and a lotion applied.

Dec. 15th. The limb was in good position; there was no discharge. No part of the dressing was removed.

Dec. 16th. There was no discharge from the wound. He said he thought he had taken a little cold from lying so long upon the ground, and his throat felt a little sore. The tonsils, looking redder than natural, were lightly touched with nitrate of silver. The bowels had not been moved. He had slept well.

Dec. 17th. The wound looked well. The lint had separated. There was no discharge. He complained of a little stiffness about the neck; and said the food was tough, and his teeth felt sore.

Dec. 18th. Early this morning, I received an urgent message from his uncle, Mr. Claridge of Pershore, who was staying a few days with him, to say that his nephew had had a most severe convulsion. The pain shot down the wounded limb; his neck and head were drawn back, and his jaws closed. The spasm was over when I arrived; but he was in a state of great alarm, and begged not to be touched for fear of renewing the spasm. Walking across the room affected him, and his agitation was most painful to witness. He said that had the convulsion lasted a minute longer, he must have died. Mr. Claridge, who is a surgeon practising at Pershore, had given our patient a dose of calomel and colocynth, and we followed it up with castor oil and an enema of turpentine. The attack was too evidently one of traumatic tetanus. The fracture was much displaced by the spasm, and the splint tilted to one side. The limb was most carefully replaced in its position. Two grains of muriate of morphia were dusted on the wound, and a warm fomentation of poppy-heads applied. He complained of great stiffness about the neck and down the arms.

Dec. 19th. He had had another spasm. The bowels had been largely and freely moved. The jaws were still stiff; and he had a sensation of numbness down the other leg. A grain of opium every three hours was ordered.

Dec. 20th. The fomentation was still applied. There was no discharge from the wound, which was dusted twice daily with morphia. He was in a great alarm at any one approaching the limb, or walking quickly across the room. From a blacksmith's forge, at the distance of sixty or seventy yards from the house, he could feel every blow of the hammer upon the anvil vibrating through the limb. He had had two returns of the spasm. He thought the opium did not agree with him. Feeling confident that if some means could not be devised to arrest this fearful malady he would quickly sink, I put the question to myself: What nerve is likely to be injured or is irritated by the ends of the fractured bones? Suspecting the saphenous from its proximity to the injury, I examined the course of the anterior crural; and finding a considerable degree of tenderness, I followed it up until I came on the internal saphenous branch; and upon my pressing upon this nerve, he cried out, "that the pain shot right into the wound." Confident I had hit upon the right nerve, I proposed to his uncle to cut down upon and divide it. He agreed with me as to the hopelessness of the case under the present or usual treatment; and having explained our views to the patient, I at once proceeded

to cut down upon the suspected nerve. On dividing it, he screamed out that it went into the fracture, and down to the end of his toes. The wound was brought together with strips of adhesive plaster; but owing to the oedematous state of the limb, union by the first intention did not take place. A good dose of opium was administered.

Dec. 21st. He passed a tolerable night; but owing to the shock the nervous system had sustained, he still felt apprehensive of another attack.

Dec. 22nd. He had had no return of the spasm; the feeling of numbness had left the sound leg, and the arms were better. The bowels had acted naturally. The wound was looking well, and secreted a little healthy pus. His uncle, unable to remain from his practice longer, and seeing he had had no return of spasm since the division of the nerve, left to-day. To satisfy him, I saw him again in the evening.

Dec. 23rd. He was going on well. The stiffness was gradually subsiding.

Dec. 24th. There was no return of spasm.

Dec. 25th. About three o'clock this morning, I was sent for in haste; the message being that Mr. Claridge had had a return of the convulsions. When I reached Pitchford, he was in great alarm. He stated that whilst asleep he felt a great start in the limb, woke up in a fright, and tilted the splint nearly over. The nurse, getting up hastily to his assistance, ran against the splint, shook the limb violently, and further displaced it. After some little time, I calmed him, replaced the injured limb, and sat down to watch him. Believing it to be occasioned by dreaming, I told him so. I remained with him, at his urgent request, three or four hours, and found him repeatedly starting when he dosed; but there was nothing of tetanic spasm like the former.

From this time, he continued to improve steadily; the wound healed readily, and the bones began to become firm; and he recovered without another bad symptom. The photographs of the limb I have now the pleasure of exhibiting were taken more than two years after the accident.*

The cause of this attack of tetanus may, I think, be fairly attributed to his exposure to cold whilst lying upon the ground for so long a time. The period of the attack was early after the injury. The sore throat, the tenderness of the teeth, and stiffness of the neck, were looked upon with grave suspicion; but before the spasm on the 18th, there was but slight appearance of the attack. The horror and alarm depicted in his face were most marked.

The purgative, the opium by the mouth, and the morphia to the wound, with warm application, did not arrest the spasms. Although, after the division of the nerve, he had a fright in his sleep, and the limb was disturbed by the splint being struck, no spasm followed; thus I think clearly proving that to the severance of the nerve their cessation is attributable.

Two or three cases are recorded similar to the foregoing; thus, in a case of tetanus following injury to the superorbital nerve, Larrey cut this across, and the patient was cured. In a midshipman, in whom tetanus came on the day after the sole of the foot had been wounded by treading on a rusty nail, Murray divided the posterior tibial nerve, and thus cured his patient. I do not know of any other cases on record.

The treatment throughout, after well clearing the bowels, was opium, beef-tea, and port wine, with brandy and milk. Exactly two months after the accident, he was able to be moved on to a sofa. In two weeks after this, he was able to be moved down stairs. In eleven weeks after the accident he was out of doors again.

BATH AND BRISTOL BRANCH.

PRESIDENT'S ADDRESS.

By FRANCIS KER FOX, M.D., Brislington, Bristol.

[Delivered June 18th, 1863.]

GENTLEMEN,—As my professional career has been almost exclusively devoted to the treatment of insanity, I had at one time much doubt if it was proper for me to venture to preside over a society whose functions are so varied and comprehensive as those of the British Medical Association; but, upon further reflection, it seems to be desirable that each special branch of our profession should in turn be represented in this chair; and that I may regard this as a legitimate occasion for intruding upon your notice a few remarks upon that topic with which I am most familiar, especially if the subject upon which I propose to touch should prove to be one of general interest to the profession.

But, before we enter upon these matters, it will not be unbecoming if I call upon our society to unite with the unanimous voice of the nation in cordial congratulations to Her Majesty the Queen, upon the twofold events which have occurred in her family during the past year; namely, the majority and the marriage of the Prince of Wales. It is not the lot of the medical profession to take an active share in the management of the body politic, nor to participate in its high dignities; but we who at a distance calmly survey the scenes and actors upon life's busy stage, are generally the best judges of the objects of the one and of the merits of the other. The rôle of the heir apparent to the British throne must be one of the deepest importance; and we are justified in forming the most sanguine expectations of a high and noble career, when we reflect upon his judicious education, and upon the general bent of his hereditary tendencies. For among the moral infirmities and the various diseases which are bequeathed from father to son, observation has taught us that hereditary virtues will also not seldom crop up; and if we look to the cool and dispassionate judgment, the aptitude for business, and the philanthropic energies and purposes of his lamented father, and if we balance these qualifications with the sanguine temperament, the acute perceptions, the generous nature, and the conscientious discharge of her numerous duties which characterise his exalted mother, does not the commixture of such mental and moral qualities justify the psychological observer in predicting that, whenever his Royal Highness may be called to succeed to the throne of these realms, he will also succeed to those virtues and to those lofty purposes which have in these latter days adorned and dignified that throne?

With reference to matters of more special interest to our own body, I may congratulate the Bath and Bristol Branch upon its numerical force, upon the various interesting papers which have been contributed by its members during the past year, and upon the average number of members who have attended at the quarterly meetings. On one of these occasions, and when no special attraction existed, more than seventy members were present; and it is evident that, if the vitality of our society depends upon its members, there is no cause for anxiety on that head. During the last year, we have not had to deplore the loss of any prominent member of the Bristol Branch; but we have to record the death of three members of the Bath Branch, viz., Mr. Boulton, Mr. John Smith Soden, and Dr. Dyke of Chippenham.

Mr. Soden had been one of the earlier Presidents of this Association, and it would have been a grateful task to me to have adverted largely to his character; but our JOURNAL contained such a fair and unexaggerated sketch of his history and career, that I will not repeat what must have been read with interest by all who, like myself, had enjoyed his acquaintance. In a fashionable

* A photograph may be had, if desired, on application to the author of this paper.

city, where our profession had at one time some difficulty in maintaining its claims to a social position, Mr. Soden never forgot the respect which was due to his own person and character; and, as he had formed an enthusiastic estimate of the high calling of our profession, so he ever endeavoured still more to elevate its tone, and to promote a spirit of concord and good fellowship among its members. With this view, he was one of the founders and a steadfast supporter of the British Medical Association; and, having earned a name which will long be venerated in Bath, it was his singular happiness to bequeath his practice and his reputation to a son who has extended the one and enhanced the other throughout the west of England.

During the past year, our profession has held on its course without any unseemly or scandalous occurrence within its ranks. It has not been our painful duty to ostracise an unworthy member, nor to cut off a rotten branch. If we have been happier in this instance than the English bar, with whose sons we are so often brought into rude contact, let us not assume too much credit to ourselves, but rather emulate that lofty tone of feeling which determined the legal profession rather to amputate one of its most important members than to suffer the whole body to be tainted by his vicious example. Hitherto, our want of coherence and of central action has prevented us from maintaining a similar discipline; but I fondly look to the growing influence of this Association as an agent, which, at no distant date, may be able to improve the constitution of our profession, and to enforce the observance of its own laws.

For this purpose, it is an obvious and laudable duty to recruit our society with fresh blood; but still I submit that new admissions should not be made indiscriminately or rashly; and I question if membership will ever become an object of ambition, while a new member can be proposed and elected in one breath without a formal inquiry into his attainments and previous professional character.

But, while we may congratulate ourselves that no public scandal has attached itself to the medical profession during the last year, I wish it could be added that no public injustice has been committed upon its individual members. This meeting will agree with me, that on more than one occasion verdicts most detrimental to the character and interests of medical men have been carried against them; and, alas! mainly through the apparent readiness with which some members of our profession have helped by their testimony to exaggerate the errors or the omissions of a brother. When we are compelled to give evidence on such occasions, no one would think of suppressing an important fact, or of not helping to bring home guilt to the guilty or neglect to the negligent; but it is another thing to show a readiness, an overstrained eagerness, to express adverse opinions on the mistakes of a brother in adversity, who may have met with some one of those untoward contingencies to which all of us are liable. The whole subject of medical evidence is in fact in an unsatisfactory position; and until medical men can be brought to relate the facts or the opinions upon which their evidence may be founded without any spirit of partisanship, I do not hesitate to avow myself to be one of those who would advocate the appointment of experts on the part of the crown, to examine into any questions which may be brought before a jury, whether those questions related to toxicology, surgery, midwifery, or lunacy. Legislation has done but little for us during the last one or two sessions, and what little has been done has been of a questionable nature. It has been well said that "these are times when the human intellect seems unaccountably to go back; when truths, which appeared firmly established, lose their hold upon mankind; and when progress, that was thought to have been secured for ever, without notice, and often without explanation, is reabsorbed by

the returning flood of ignorance and error." (Bonamy Price, in *Macmillan's Magazine* for June 1863.) Without stopping to inquire whether the alterations which have recently been introduced into the preliminary branches of medical education may not afford an example of this fact, I can provide you with one striking illustration of it in the dictum of the Lord Chancellor, who declared in the House of Lords that "the introduction of medical opinions and medical theories into the subject of insanity, has proceeded from the vicious principle of considering insanity as a disease; whereas the law regards it as a fact which can be ascertained by the evidence as any other fact. Therefore, we empanel a jury of *ordinary* men, and call upon *them* to try the question by proof of the habits, demeanour, language, and acts of the alleged lunatic."

The Lord Chancellor is the legal guardian of all the insane in England, and ought therefore to be an authority on insanity; but it will be in the recollection of this assembly that several trials for murder within the last twelve months must have supplied his lordship with some happy illustrations of the extraordinary principles which he has propounded, and of the psychological acumen of his twelve ordinary men. I wish to recall the recollection of the meeting to the case of *Hall versus Semple*, which was an instance in which a medical man involved himself in a severe legal penalty by permitting his judgment in a case of alleged insanity to be formed upon the *ex parte* statements of the patient's wife. The common symptoms of mania with its frantic impulses and its incoherent raving, or of melancholia with its suicidal or homicidal tendencies, are known to all men; but there are many more obscure forms of mental disease, which may be incautiously and insensibly revealed to the daily associate, to the bosom friend of the patient, but which are by no means so obvious when the individual becomes conscious that he is under the eye of a medical examiner. Dr. Semple probably found himself in this dilemma, and, with the best and most amiable motive, trusted too much to the good faith of the wife. The severity of the verdict against him will induce more general caution, and has indeed already had the effect of rendering some men reluctant, under any circumstances, to incur the ill-paid risk which attends the execution of a medical certificate of insanity. But the responsibilities of our profession can never be evaded without the loss of our legitimate influence and of our self-respect; and therefore I take leave to submit a few suggestions to the society, which I hope will enable every man to act firmly and legally when called to pursue such an investigation.

Insanity may exist in various degrees, and is sometimes so slight, so much combined with eccentricity, humour, or disposition, as to render it difficult to distinguish the one from the other. But whoever ventures to sign a document which is to deprive a fellow creature of liberty, will require something more definite than this, some demonstrative proof of the unfitness of the individual to be trusted with the management of himself, and of his own affairs; for, although a man may be thoughtless, ridiculous, and extravagant, yet the law of England provides no controlling power over such a case, and people like Mr. Windham may still be allowed with impunity to dissipate their paternal acres in the most reckless and puerile manner. It was laid down by Sir John Nicol that the absence or presence of delusion—so understood—forms the true and only test or criterion of absent or present insanity; that delusion and insanity are convertible terms; and that in the absence of delusion (with whatever extravagancies a supposed lunatic may be justly chargeable, and how like soever to a real madman he may either speak or act on some or on all subjects), still, in the absence of delusion, the supposed lunatic is not properly or essentially insane. Now this is a lawyer's definition of insanity; and, if such a doctrine could not easily be controverted, Sir J. Nicol would in-

deed have provided us with an infallible test, and with an unerring guide in the prosecution of our inquiries. But it is unnecessary to remind you of the frequent cases of partial or of general dementia which occur in practice, where the mental faculties have been so subverted or so confused as to destroy those powers of comparison or imagination, whose action would be required to constitute a delusion. And, while I submit that an unsound mind may exist without any one such evidence of its morbid condition, we must not forget that a mind capable of the most sustained efforts, and in all respects well balanced, may nevertheless hold one cherished delusion; and thus, while such a person was capable of performing all reasonable actions and social duties, in the eye of the law he must be held to be insane. We must look, then, for a different test for the analysis of the more obscure forms of mental disease; and there are some physical and some psychological symptoms, several of which will almost invariably be found in every instance of insanity. Among the former, any deviation from composure of countenance, dignity of gesture, or from the natural tone of voice; any novel peculiarity in manner, dress, and in those muscular actions which impart expression to the thought independently of speech—violent and unaccountable gesticulation, rapidity of utterance, a restless uncertain gaze, a disinclination to look the questioner in the face; the pin-head contraction of the iris; unusual sensibility of the skin, and a fœtor proceeding from the body, which is indescribable and *sui generis*; a low quick pulse; a dry white quivering tongue and constipated bowels—these form a train of symptoms, several of which are usually to be found in cases of mental alienation. But if to these be added impaired memory, unusual and uncontrollable emotion, uncertainty of purpose, hasty decisions, a tendency to reverie or to soliloquy, inflated and extravagant opinions and conduct, and a sudden suspicion or dislike of those to whom the individual was previously attached, I conceive that no practical medical observer could hesitate to pronounce such a person to be insane, even if no delusions could be proved to exist. But when one, and only one delusion can be detected, and the patient proves to be deaf and impervious to argument upon that one point—or when one, and only one delusion of the external senses can be shown to exist, the examiner may feel tolerably confident that he only requires time and opportunity to detect others, and that most of the cases of monomania which are recorded, would, upon closer and more minute examination, prove to be cases of general insanity.

Some few words I would add respecting the tone of mind and the manner with which a practitioner should enter upon such an examination. Let him recollect that lunatics, like children, are often shy and timid; that, like them, they have a high appreciation of truth and fair dealing; and that any attempt to deceive or mislead them, even for some good purpose, is apt to recoil upon the head of the offender. Although some cases are capable of great reticence, and of deep combinations, still popular opinion has attributed to the lunatic far more cunning than he generally possesses. So far from any such quality being necessary in the examiner, I would urge him to avoid all subterfuges, and, if challenged as to the object of his visit, rather to admit his purpose, than to risk the loss of that moral ascendancy, which will be his advantage ground in contending with the difficulties of the case.

The annual meeting of the parent Association draws near; and, when we recollect the philosophical character of the addresses which were read at the gathering last year, as well as the enlarged hospitality which provincial members received from their metropolitan brethren, the Bristol branch may be excused for feeling some little distrust of its power to follow such a bright example. The addresses in medicine and surgery have, however, been

allotted to men not unknown to fame, whose frequent contributions to science afford the best guarantee that these gentlemen will reflect credit upon the selection of the Council, and who possess this especial recommendation, that each of them, Dr. W. Budd and Mr. Prichard, are men of eminently practical minds. And, although the subjects of obstetrics and of chemistry will probably attract the attention of a more special audience, we feel assured that the authors of those addresses will illustrate their several papers with every novelty which recent scientific researches may have brought to light; that the more frequent practice of ovariotomy, and the unlimited application of the speculum will not escape the notice of Dr. Swayne, and that the practice of medical chemistry will be sanctioned and advanced in the address of Dr. Herapath. Our highest expectations, however, are built upon our intimate knowledge of the mental resources of our learned President, of whom we may truly say that, although he be a provincial physician, he is *haud ulli secundus*; and I may add without flattering, that this Branch reposes perfect confidence in the philosophical and enlightened character of his address, and in the enlarged hospitality with which he proposes to inaugurate the meeting.

SOUTH-EASTERN BRANCH.

PRESIDENT'S ADDRESS.

By JOHN ARMSTRONG, M.D., Gravesend.

[Delivered June 24th, 1863.]

GENTLEMEN,—The position in which you have placed me as President of this large and important Branch of the British Medical Association, unsought and unexpected as it has been by me, is one for which I feel I am unfitted; and I am especially conscious of this, that when we remember the able men who have preceded me, you will at once yourselves feel that

"Sequiturque patres non passibus æquis."

As, however, a man is not responsible for what he hath not, but for what he hath, I shall endeavour to discharge the duties of the office to the best of my power; knowing that I shall be well sustained by kind and judicious friends, and that considerateness and sympathy will cause you to regard my errors with forbearance and partiality. I propose, then, to begin my duties by a short review of the origin and some of the results of the British Medical Association.

The origin of the British Medical Association in 1832 was mainly the result of observation on the social and scientific condition of the provincial practitioner; and the clear and far-seeing man to whom we are indebted for its formation, Sir Charles Hastings, had soon the happiness to perceive that he had inaugurated an Association which must go on uniting into one brotherhood the practitioners of medicine and surgery in these kingdoms. The Association, as you know, has passed through several phases; it has been cradled in storms; and the rough blasts which have howled around it, as around a young oak one day destined to be the king of the forest, have only caused its roots to spread deeper and wider. And now Sir Charles Hastings can rejoice in a glorious prospect. Never before in this country has there been so much cordial friendliness among the members of our profession as in the present day. And to what is this attributable? I answer unhesitatingly, to the influence which the British Medical Association exerts; for I am persuaded its influences are felt not only among its own members, but imperceptibly, though certainly, by others who are not enrolled among its associates. I think I express a feeling which is uniformly experienced when I say that, when a man becomes an associate, he feels that he becomes a stronger man; that he has friends whom he had not before; and

that a regard for his fellow-associates and every well conducted member of the profession, their families, and all that concerns them, arises within him, elevating his spirits and ennobling his nature, and causing him to feel that, in joining the Association, he has broken through a net of prejudices and follies.

But this is only one aspect under which we may view the Association. There is another equally valuable, and which has assuredly resulted from the operation of the Association. I take up the JOURNAL week after week, and I read reports of papers, discussions, meetings, on professional subjects, in different parts of the country. I know that before the formation of the Association, in some of the large towns, meetings for scientific purposes were held; but these were few and far between, and generally died out when the leading mind or minds who inspired them were removed. But now we have an extent of associations and meetings which are bringing out the stores of knowledge and experience of many a shrewd practitioner; and the stimulus to observe, record, and narrate is so general, that the tone and character of our profession is becoming every year more clear and philosophical.

I should trespass too much on your time were I to bring under your notice the various beneficial effects, social and scientific, which are the obvious results of our Association; but I think you will pardon me if I refer to an instance or two in which these effects are most obvious. Foremost among them I place the annual meetings; and first among these the annual meeting of last year held in London—a conference of our choicest men from the great centres of knowledge in these kingdoms with the men in general practice in the rural districts, held in the hall of that august body, the College of Physicians, the spirits of whose illustrious dead would rejoice over the brotherly assemblage of their sons, the first outline of a real one-faculty qualification. The cordial welcome of the President, the presence of so many of the *élite* of the profession, gave an importance to the meetings such as has rarely been seen; and whether we refer to the papers and discussions, or to the addresses, our minds are equally impressed with this feeling, that such are some of the results of the British Medical Association. I cannot forbear alluding to the addresses more particularly, having enjoyed the high privilege of hearing them; for, whether we admire eloquence and logic with beautiful elocution, or practical sagacity, or profound and comprehensive philosophy, or, as I apprehend most of us do, all combined, these were then presented to us; and we must add, that the addresses were worthy of the great teachers of our noble art in the great metropolis of the world. But these references to that grand meeting would be sadly deficient if I did not allude to the princely hospitality, or rather hospitalities, with which our metropolitan brethren entertained the Association. Beginning with the *soirées* at the Colleges of Surgeons and Physicians, the bountiful open house in true baronial style at the College of Physicians, and the warm-hearted invitations to dinners tendered by so many of the men of the profession in London to those coming from a distance, instead of the old stiff formalities of former days—when we look at all these matters, we see evidence of an influence harmonising and strengthening the Association throughout its whole extent, and reflecting imperishable lustre on the large-hearted noble-minded members of the Metropolitan Branch of the Association.

As another result of the Association, I would for a minute or two advert to the JOURNAL. At first, as you are aware, *Transactions* were published; and then a JOURNAL was published in the country, and subsequently removed to London, ultimately assuming its present form. Now, I apprehend, one can scarcely look back over the progress of this department without feeling that we have advanced with the times, and that we have

a JOURNAL replete with interesting matter, exerting a beneficial influence on the members, and keeping a watchful eye on all the naughty boys of our profession. I have never myself come under the editor's lash; and hope I never may, because I fancy those who do must writhe and wriggle considerably. I like a straightforward, honest man, who calls a lie a lie; and I say, all honour to our editor for the honest fearlessness with which he denounces everything that is mean, quackish, or disreputable. I know a great many objections have been made against our JOURNAL; but I think the gentlemen who make them will feel that we should have an organ; and that an Association so large, in such railroad days, requires a JOURNAL at least once a week. And I do not think our JOURNAL interferes with the success of other periodicals. I have been a reader of the *Medical Times* and *Lancet* from the first day of their publication, and I could not do without them. Such, I believe, is the general feeling: we want them all. There is room enough for them all; and all I have to say is, I hope they will think so, and not quarrel and call each other bad names.

I have trespassed too long, and must conclude these remarks by a reference to another result, which I shall make the last evidence (although I could easily enumerate many others) of the great benefits the British Medical Association has conferred upon the profession. Of course, I refer to our own social and scientific meetings. I have been connected with these gatherings from their commencement. I have watched them carefully; and I have no doubt you will agree with me that they have conferred a large amount of benefit on those who have attended them. They have been the means of inducing such men as Mr. Fry and Dr. Martin to open their precious stores and place them before us; and many men have read papers of great interest, who, but for these meetings, would never have done so. Many a hint has been received for future practice; and the occasional criticisms and discussions have quickened our energies, sharpened our logic, and corrected some long cherished delusions. It has been said that none can dispute like Englishmen; for, when the heat of debate is passed, the previous friendship is undisturbed; and so I trust it shall ever be with us. I like a good hearty discussion; and I like also to see the disputants maintain their temper, and esteem one another all the more for the contest. I should rejoice, and do rejoice, to find the young men of our profession joining us. I should rejoice also to find them producing their papers or cases, and taking full share in the discussions. Adam Smith, that great and original thinker, wrote a work on the *Moral Sentiments*, in which he referred all our motives to sympathy. Some years afterwards he produced his great book, *The Wealth of Nations*, which referred almost all our acts to selfishness. These appear at first sight contradictory; but they are not so, and a little reflection will convince any of us that all our acts are traceable to one or other of these principles. I say, then, to our young friends: to whichever your inclinations may lean, sympathy or selfishness, or both, come with us, and we shall afford you ample opportunities for the gratification of either or both. You can serve your profession in its families, its members, in their afflictions, their losses, their bereavements; and should you have only the little soul which lives for its own selfish benefits, even then we shall do you good, and your advantages will far exceed all the expenditure you may have incurred; and you will not live long among us without having your sympathies awakened and your heart enlarged with feelings of esteem and regard for your brethren.

Gentlemen, unity is strength. Would that every member of the profession acted on this principle! How different then would be the aspect which we should present to those out of doors! There would be no men who, for the sake of a few paltry pounds or a little tem-

porary notoriety, would appear in courts of justice to assist the designing and wicked in extorting money from, or fastening disgrace on, our esteemed brethren. I hold that the British Medical Association presents the centre for this union. Its principles, its organisation, are admirably adapted for this purpose; and I rejoice to think our numbers are greatly increasing; and when we can unite the profession into one compact phalanx, then will our voice be heard in the country and the senate, and our claims will be recognised and our rights obtained, and our profession assume its place in the land, inferior to none in rank, intelligence, and usefulness.

You will perceive from my remarks that I regard my position as President of the South-Eastern Branch with no little awe. I shall do my best to discharge the duties of my office so as not to bring discredit upon it. I shall endeavour to devote myself during my year of office to the faithful discharge of the duties, and shall hope for the support and sympathy of those gentlemen who are associated with me; and I trust, by God's blessing upon our efforts, to maintain the dignity of this department of professional duty.

LANCASHIRE AND CHESHIRE BRANCH.

PRESIDENT'S ADDRESS.

By J. R. W. Vose, M.D., Liverpool.

[Delivered June 24th, 1863.]

GENTLEMEN,—The meetings of the British Medical Association and of its affiliated branches have been now so numerous, that it has become very difficult to announce anything new—we mean, of course, anything that shall be true as well as new—from our pulpits. We might, doubtless, condole with you upon the shortcomings of the Medical Act; but this would be only an attempt to perpetuate a wail which has already perhaps been prolonged to satiety. We might, with a pedantic particularity more suited to a Nisi Prius court than to a scientific audience, enter upon a solution of the vexed question—Who is now a doctor? We should rather say, who is not a doctor now?—pointing out that while one man may be a physician without being a doctor of medicine, a second man may be a doctor of medicine without being a physician; while yet a third man may offer to us the variety of being both a physician and a doctor of medicine in one; a jumble, as we know, more apparent than real; for although the thing may not be clear to the public, it is perfectly obvious to us. These and congener commonplaces might be dwelt upon. But as it is my duty to avoid, as far as possible, drenching you with any of the “drowsy syrups of the East,” we refrain from inviting you to travel with us upon these dusty and already furrowed roads; and we propose to enter, for the few minutes which are all that can be spared to us, upon a subject pregnant with interest at all times—we mean the hopes of medicine. Our hopes of medicine are so multifarious, at the present point of time, that we can only touch upon a few of those that would appear to be among the most prominent of them.

First, then, let us hope that we shall not be kept waiting much longer for the promised national *Pharmacopœia*, wherein the therapeutic weapons, hitherto scattered through England, Scotland, and Ireland, shall be gathered together from these three kingdoms, and arranged in one imperial armoury; where, unless the ridiculous redundancies which have so long disfigured our pharmacy shall have been subjected to a vigorous Procrustean pruning, of which we are far from feeling sanguine, we hope that a very considerable portion of them will be left, by those at least whose aim it is to practise medicine as an enlightened science, to rest and to rust in peace, to the great simplification of our art, and to the consequent advantage of society. We use the phrase ridiculous redundancy advisedly; for when we remember

that at present there are offered to our selection, on pharmaceutical authority, upwards of forty preparations of iron, upwards of thirty preparations of mercury, and upwards of thirty preparations of opium—thus giving upwards of one hundred preparations of only three among our innumerable drugs—while the most whimsical practitioner probably never handles even half-a-dozen forms of any one of them, we venture to think that we are fully warranted in expressing ourselves as we have done. It appeared to the philosophical mind of Alison, as shown in his *History of Medicine during the Present Century*, that we must look for future progress in the practice of the art to the improvement of medical education, to a further discovery of specifics, and to the investigation of the causes of disease. Yet the improvement in the treatment of pulmonary consumption, which has been going on for some time past, and which has been detailed in so interesting a manner in the Lumleian Lectures for 1862; and the late improvement in the treatment of acute rheumatism, of pneumonia, and of inflammation of the membranes of the heart, to say nothing of other diseases, seems to justify the hope that the eminent and admirable man whose name has been just mentioned took too limited and desponding a view of the prospects of practical medicine, and that it is susceptible of great advancement by new modes of applying old remedies. In the Lumleian Lectures for 1862, “On the Successes and Failures of Medicine,” to which we have just alluded, and to which we again refer as one of our most recent as well as most valuable publications, on account of the large experience of their author in the diseases of which he treats, we find the unqualified statement that bleeding is still to be regarded as the best treatment of the first stage of inflammation of the lungs; and, further, that because double cupping, blister, and mercury, failed to save a patient labouring under pleuropneumony of both sides, with pericarditis, whose pulse was 140 when thus prescribed for, and who said he felt dying, we have an illustration, in an exhaustive sense, of the helplessness of medicine to avert death under such circumstances. We demur, in the present state of our therapeutic knowledge, to this conclusion, as being widely contrary to the experience of many others, among whom I crave leave to enrol myself. For we answer that Andral, who relied upon bleeding in pneumonia under all circumstances, lost more than half of his cases; while Dietl, by a purely expectant method, lost only one in 13; and Bennett, who trusted to salines, light nourishment, and stimulants, lost only one in 35 cases. Let us express an earnest hope, then, that the strong conservative element which has so long been one of the noblest attributes of English surgery is about to be as marked a characteristic of English medicine. The present generation of physicians has seen the doctrines of the elder Hamilton, the enormous doses of tartar emetic recommended by Rasori, the lavish depletions of Armstrong and of many others, the prodigal use of mercury as advised by Elliotson, and the rigorous starving of Broussais, abandoned; and not only with safety, but with unquestionable advantage, as we not only hope but thoroughly believe.

The satirists of divers nations have, from all time, fallen with telling effect upon sundry weaknesses of the profession. Mysterious gravity of demeanour, preposterous specialities of costume, the display of an inflated technical diction, have not escaped them. Why we should be mysteriously grave, why we should be peculiar in dress, why our diction should be obtrusively technical, appears to be inexplicable. But learned bodies should be ever on their guard against making themselves ridiculous in the eyes of men of the world. Gravity has been defined by one of the shrewdest observers of human nature to be “a mystery of the body, invented to conceal the deficiencies of the mind.” The less parade, then, of gravity the better, perhaps. Preposterous specialities of costume are now nearly restricted to the other sex. But

our love of an inflated technical diction, which has been so severely commented upon by men of taste and of high education, seems to be luxuriating in our own ranks more vigorously at present than at most former periods. Whether this is in any way connected with the decay of sound classical scholarship and with the neglect of elegant literature amongst us of late, we cannot pause to inquire; but true it is that our testimony in courts of justice, our professional discourse, and our writings, are too often disfigured by a display of puerile pedantry which would have bewildered our predecessors, and which make us the object of much damaging pleasantries. We now hear of basic murmur in reference to the heart; of spanæmia and of hyperinosis in reference to the blood; of instrumentation, which, perhaps, explains itself; of angioleucitis in reference to we really know not what. The old term craniotomy, which seemed barbarous enough, is now likely to be superseded, it appears, for we hear of cephalotripping the fœtus in its place—while such things as pneumatoscopes, pneumatothermometers, stethophones, sphymoscopes, and even sphymosphones are spoken of; although it must be abundantly obvious that we can never acquire a correct knowledge of their pronunciation. Not long ago a very interesting paper was read in this institution, and I was twitted with showing a want of zeal for scientific progress because I ventured to protest against the title of the paper, which was "On the Galactagogue properties of Faradisation." Let us hope that the fabrication of this grotesque jargon, which can be coined with such fatal facility, may speedily come to an end; and that we may seriously address ourselves to the elimination from our style, both oral and written, of so uncouth and ludicrous a fault. Physicians and surgeons of the highest class have been remarkably free from the taint of pedantry; it might be well to take them for our model in this as in other matters.

To address the members of the British Medical Association, without bringing in the subject of quackery somewhere, might be thought as dangerous an innovation as to discontinue dividing discourses into three parts, although many discourses would be improved by not dividing them into three parts. The quackery which exists without the pale of the profession, and with which we have nothing to do here, may be left to the fostering care of its principal patrons, the educated classes, [as they are called. "In the meantime," as our JOURNAL says, "one thing we may do, and that is, suppress all quackery within the profession itself—the most dangerous of all the enemies which we have to encounter in this line; the quackery of advertisements, whether by newspapers or public appointments; the quackery of pretending to cure, while we only administer to nature; the quackery of competition; the suppression of these and of a dozen such anomalies which we could mention will, we suspect do more to elevate our profession and to put down outside irregularities than any Act of Parliament will ever do for us." The quackery by advertisements has attained such proportions of late years, and is practised by a class of medical men, both in and out of the metropolis, from whom we have a right not only to expect, but to demand, better things, that we think it to be our duty to single it out for special reprehension on this occasion. Popular periodicals, local penny newspapers, illustrated prints, many of which never get beyond the nursery or the butler's pantry, are invaded by large numbers of learned gentlemen, who systematically advertise themselves and their writings therein. Now, although we sympathise sincerely with them in their desire to meet their household expenses by bringing themselves before the public, we submit that this is an illegitimate and an odious way of endeavouring to give a practical result to so righteous an aspiration. Indeed, there would be scarcely any further loss of dignity if these people would set a van in motion, and it would be seemly to give the press some rest. We fervently hope

that the high-minded members of the medical profession will henceforward mark their contemptuous disapprobation of such men in some more emphatic way than has hitherto been done.

Perhaps one of the heaviest and most unlooked-for blows which the profession has ever received, it has received lately; and, strange to say, more than once. That blow has been suicidal, or self-inflicted. We advert, of course, to medical men exerting themselves to consummate the destruction of their brethren, when these last have had the misfortune to be assailed by the Philistines. This matter is too fresh to need setting forth here; a circumstance for which I am thankful, as I could not trust myself to enter upon it with becoming calmness. We hope, however, that the profession will ponder on this great iniquity well, and visit it with all the penalties which it merits, both now and on every future occasion, should any, whatever may be their position among us, ever dare so to sin again.

The last hope which we propose to express we approach in an earnest and solemn spirit, indeed. Since this Branch of our Association met at Manchester, the most eminent man in the medical sciences, the only surgeon who was ever raised to the chair of the Royal Society, has paid the debt of nature. Whether we regard it from a personal, a professional, a literary, or a scientific point of view, the character of Sir Benjamin Brodie is equally deserving of our most careful study. We hope that so remarkable an example of what we ought to be will not be lost to the present generation, or to those who are to follow us. In him the philosopher and the practical man were combined, as they are seldom found to be combined. Amid the disappointments and the mortifications inseparable from professional life, we may derive consolation from contemplating a career such as his was; and in hours of disquietude and of despondency, arising out of the very nature of the pursuits in which we are engaged, let us recall that sententious saying of his—"Medicine is an indifferent and an irksome trade; but it is a noble and interesting science."

Reviews and Notices.

DER KEHLKOPF-SPIEGEL UND SEINE VERWERTHUNG FÜR PHYSIOLOGIE UND MEDICIN. Eine Monographie von Dr. JOHANN N. CZERMAK. Zweite Auflage. Leipzig: 1863.

[THE LARYNGOSCOPE AND ITS EMPLOYMENT IN PHYSIOLOGY AND MEDICINE. A Monograph. By J. N. CZERMAK, M.D., etc. Second Edition. Pp. 132. With Three Plates and Thirty-six Woodcuts. Leipzig: 1863.]

THE value of the laryngoscope, as a means of prosecuting physiological inquiries into the functions of the vocal apparatus and of determining the nature of the various lesions affecting the structures concerned, is now so generally recognised that it is to be regarded as a *jait accompli* in medical science. Without it laryngeal disease is a mystery; and medical men interested in the advancement of their profession owe great thanks to Professor CZERMAK for the perseverance with which he has sought to popularise this valuable aid to physical diagnosis. We have so often referred to his labours that we need not, on the present occasion, do more than bring under the notice of our readers the fact of a second edition of his monograph on the Laryngoscope having appeared, and urge upon those who have not yet made themselves acquainted with his

researches and the instrument itself to do so without delay.

The present edition is not materially different from the first; but it contains copious allusions to those workers in different countries, who, at the instigation of Professor Czermak, have prosecuted inquiries by the aid of the laryngoscope, and have added strength to the conclusions at which he has arrived.

British Medical Journal.

SATURDAY, JULY 4TH, 1863.

PHYSICIANS' FEES.

As antithetical to a case elsewhere noticed, we turn with pleasure to an instance—somewhat remarkable—in which three physicians, distinguished members of the Association, and leading members of the profession, have signally dignified themselves and the profession by their action. It is, indeed, the too frequent examples of conduct contrary to that adopted by Dr. Vose, and sustained and sanctioned by Dr. Watson and Dr. Latham, which has so much tended to reduce our profession to the level of a mere trade in the eyes of the public. The case is this.

Dr. Vose of Liverpool is summoned to go to Aberdeen to visit one Mr. George Grant, an old patient of his. He obeys, brings back Mr. Grant to Liverpool; and subsequently attends him for some time, in fact until his death. The executors of Mr. Grant subsequently apply to Dr. Vose for an account of the fees due to him. Dr. Vose replies that his fees are 205 guineas, being 186 guineas for the going to Aberdeen (372 miles)—at the rate of half a guinea a mile—and nineteen guineas for ordinary visits. Hereupon, he is told that his charges are quite too high; and it is thrown in his teeth that Dr. Latham had once visited Liverpool for one hundred guineas, and returned fifty of them because the patient died immediately on his arrival. Also, is thrown at him the tariff “adopted in Edinburgh”.

“As stated to me,” writes Mr. Gladstone, one of the executors, “by Professor Miller, in 1852, in these words, ‘As to the railway tariff, some time ago an arrangement, somewhat to the following effect, was come to as to distant visits: 1. When occupying the day only, £25. 2. When night is included as well, £30.’”

The executors wind up by offering Dr. Vose £100 in full of all demands.

Dr. Vose rejoins to the offer of this “liberal remuneration,” as it is called, that in England we are not guided by Edinburgh tariffs in such matters. He might have added that Scotchmen change their tariff, when they practise south of the Tweed—that the Fellows of the Royal College of Physicians of London have laid it down that the fee shall not be less than two-thirds of a guinea per mile when railways can be used, and one guinea when post roads

are to be used; and that he (Dr. Vose) had, in this instance, charged only half a guinea a mile, for the reason that he had long been the deceased gentleman’s physician.

In the correspondence which ensued, the executors, Mr. Kelso, Mr. R. Gladstone, and Sir T. Gladstone—the latter, at all events, we believe, a man of enormous wealth—amusingly take upon themselves to decide what the proper travelling fees of doctors should be; which, we suppose, is much the same kind of thing as the doctors taking upon themselves to decide whether 50, 200, or 500 per cent. is the proper profit which Sir T. Gladstone (for example) should accept on any given mercantile transaction.

The reasonings of these Liverpool gents is amusing. One takes up his ledger, and says, You were only away, I think, two days; and, even at half a guinea a mile, you have asked a fee which represents a practice of about £36,000 *per annum*. The other comments thus: “The saving of time by railway travelling has rendered necessary a large reduction in the charges made by medical men”; and he repeats the rumour of Dr. Latham and the £50. Besides, he says, you were employed “rather in the nature of a travelling companionship” than as a medical man; and certainly we should never have employed you if we had known your charges were so high. The baronet then discusses the relative position of London and Liverpool doctors; and he does not admit that the fees of one can guide the fees of the other. He thinks it a very hard case. The reduction of the guinea to one-third, or even half, is not enough now-a-days, and

“Confers undue advantage on the medical man, and, in my opinion, is, as it strikes me, barely creditable to such members of the profession as attempt to act upon it. I cannot doubt that Dr. Vose will reconsider his charge; and hesitate to take a course that would tend to discourage the public from obtaining the aid of medical men at a distance, and is at variance with the system of Edinburgh, and frequently that of London also.”

In a P.S. he adds, that he cannot see how being a Fellow of the College of Physicians entitles a country practitioner to charge the London fees. He winds up with the opinion that one hundred guineas (an advance, by the way, of £5 on the first offer) was a very liberal offer.

Dr. Vose says to all this: If, on application to any high medical authority, the heirs of Mr. Grant find that Dr. Vose’s charge is incorrect, he will gladly rectify it; and adds:—“That, as a Fellow of the Royal College of Physicians of London, I make no demand for professional services.”

After this, the executors return to the charge, evidently discomfited by the firm and dignified position assumed by Dr. Vose. They appear to have deliberated amongst themselves, and then they write to their agent and say, that to make things pleasant, and save all future annoyance to the heirs, they re-

commend that 120 guineas—a further spring in the offer, as they would say on 'Change—be tendered to Dr. Vose.

Now, here comes a most amusing *contretemps* between these mercantiles. Mr. Gordon, the agent, we presume, expresses his entire

"Concurrence in your recommendation that the sum 170 guineas (*sic*) should be tendered to Dr. Vose. . . . I consider that sum to be a just and liberal remuneration for the services rendered by Dr. Vose."

This he says in answer to the question,

"Let us know, by a few lines, whether this suggestion (of 120 guineas) "does or does not coincide with your view as to what is liberal, and just, and fair to Dr. Vose."

Evidently, the inditor of the executors' epistle to Mr. Gordon is a bad hand at writing; so bad and unlucky, that Mr. Gordon reads 170 instead of 120! and entirely concurs with those who offer the 120, that the offer of 170 guineas (as he reads it) is just the proper figure. Never were a set of biters more neatly bit. No doubt Mr. Gordon had written and committed himself to Dr. Vose before the error was discovered. However, here, one way or another, we find the Liverpool gents. haggling over the fee, and running up their offer thus: £100, £105, £126, and £178: 10!

When this last offer (unwittingly, of course) is made to Dr. Vose, Dr. Vose replies, "That he has really nothing more to say upon the subject." And the executors end by saying that they must now reluctantly wind-up the accounts, and regret that "they must close the accounts without introducing your claim into them."

So ends this correspondence. We do not, however, for a moment suppose that the shabbiness of the executors will be eventually carried out in practice and endorsed by the heirs. The heirs cannot repudiate, as the executors have done, on the pretence of duty and disinterestedness.

Appended to the correspondence, are two letters well worthy of especial note, from Dr. Watson and Dr. Latham. They point out distinctly what is the line of practice in cases of this kind. We are quite unable to understand how Sir T. Gladstone, who quotes medical authorities (of Edinburgh) can honestly resist these English authorities; nor how he can resist the evidence of Dr. Latham, which he formerly misquoted against Dr. Vose. If Dr. Latham's authority misquoted and the Edinburgh authority of Professor Miller are worthy of note, surely equally so are the London authority of the President of the College of Physicians and of Dr. Latham truly quoted. The baronet cannot have it both ways; if he selects his own knife for cutting, he cannot complain if it cuts his own fingers. Dr. Watson says:—

"Assuming that the *honorarium* expected by you for the distant visit did not exceed what is customary in the profession out of London, but in England, I do not hesi-

tate to say that your share of the correspondence in question has been strictly correct in principle—temperate, forbearing, and dignified in tone.

"For at least thirty years it has been the habit with London physicians to look for, and to obtain, two-thirds of a guinea per mile, for every professional visit into the country, performed by railroad.

"These terms were settled by the leading physicians and surgeons here after the fullest consideration; and, to the best of my knowledge and belief, the rule has been, and is, observed by all the 'men of eminence' among us.

"The fees thus settled are undoubtedly large. The temptation of the large remuneration is strong; but its receipt scarcely compensates the great and inevitable inconvenience, and the possible, even probable, injury to the physician, which such visits involve. His unexpected absence disappoints and brings distress to some of his London patients, and is the occasion of offence, and sometimes of alienation, to others. The confusion and trouble consequent upon the derangement of his existing engagements are very great, and are not soon or easily rectified. I say nothing of the fatigue and the risks of the journey itself, though these are neither imaginary or slight. Several medical men have been hurt when proceeding on such errands—and it is notorious that one eminent physician has lost his life—by accidents on the railroad. So that the remuneration, though large in amount, is not, in my judgment, excessive; and I feel sure that the physicians in London, whose services are most in request, will not consent to undertake long journeys into the country, if such journeys imply any risk of subsequent uncertainty or haggling about the usual *honorarium*. Fortunately for us, the question of 'a larger reduction,' which one of your correspondents affirms to be 'necessary,' rests with ourselves.

"After all, the matter, to my mind, is a very simple one. The patient, or the friend who acts on his behalf, is bound to do one of two things; either to ascertain beforehand the terms on which the desired visit will be made, and to accept or decline the visit accordingly; or else having neglected to obtain this information, he is bound in honour to discharge, *in full*, the pecuniary return which is customary for such a visit."

Dr. Latham thus, in a letter to Dr. Watson, repudiates the tale so repeatedly told by the executors of the £50 fee. He says:—

"As a matter of fact, or even of fair inference, there is not a word of truth in any or all of these statements put together" (relative to the fee). "On February 23rd, 1848, I was summoned down to Liverpool by electric telegraph, to see a young man. But what of the fee? Certainly, no 'charge' was made by me; I doubt whether I ever made a charge by way of previous agreement in my life. When the family had recovered from the awful shock they had experienced, they sent me one hundred guineas; so the matter stands recorded in my book of professional receipts for 1848. Thanks to two or three documents written at the time, and luckily preserved, I escape the imputation of that spurious liberality which the executors would hold up for imitation; and I escape too all suspicion of shabbily undervaluing the services of physicians, and denying the right of Dr. Vose to the just remuneration which he claims."

There is one argument in favour of high fees in cases of this kind which has not been alluded to by Dr. Watson; but in our opinion it is one of especial value. The high fee assists in preventing a great injustice from being done to the country practitioner. It provides against the unfair introduction of other practitioners into his district. The high fee en-

tirely does away with the chance of the medical man in the country having a rival in London. Once reduce these fees, as Sir T. Gladstone and Co. would have them reduced, and peripatetic doctors might rise up amongst us in London, and become positive rivals to the country doctors.

In conclusion, we are sure the profession will warmly support Dr. Vose for thus so highly upholding the character and position of the profession.

THE WEEK.

MR. BOTTOMLEY cannot with justice accuse us of acting unfairly towards him. He comes forward as a public man, and as a public man we discuss his acts; and the more prominent the position of a medical man, the more necessary is it to discuss his public acts. That he has done an injury to his professional brethren by the views which he has publicly stated in reference to vaccination, appears to us evident. That those views are erroneous we are fully certain; and therefore we consider it our duty to expose their fallacy; for we should much regret to see them elsewhere repeated. The injury done thereby has already been shown. Since we last wrote, we find that the Croydon Board of Guardians have again met, and that an attempt was made by one of the guardians to have the fee for vaccination raised from 1s. 6d. to 2s. 6d. and 3s. 6d. But the proposal was rejected; and, as grounds for the rejection, Mr. Bottomley's words were prominently quoted. One guardian said:

"Mr. Bottomley told them that 1s. 6d. was amply sufficient for vaccinating; and he moreover said that every medical man, for his own and family's sake, and for the sake of the nation at large, would see that every one was vaccinated who was brought to him, and not simply for the fee. He (Mr. Bottomley) was the oldest practitioner in the town; and he" (Mr. Pocknell) "would accept his opinion as the most indisputable authority. [*Hear, hear.*]"

Moreover, under the same inspiration, amidst applause and "*hear, hear,*" the same guardian—Mr. Pocknell—adds:

"On whom did the responsibility rest? He said, upon every medical man in England [*applause*]; and if there had been any neglect or carelessness, it was amongst those gentlemen. [*Hear, hear.*] He thought the motion of Mr. Close might have stood over till their own medical officers had asked for an increase."

Till their own officers asked for an increase, indeed! Why, the smallest suggestion of such a thing from them would be the choice of instant dismissal or silence. We all know what happened to Oliver Twist when he had the audacity to "ask for more." One guardian, however—Mr. Fuller—had, we are glad to see, common sense enough to recognise the plain fact that doctors should be paid as well as other men for their work.

"It did not appear to him that every medical gentle-

man was bound to step out of his path and vaccinate people free from charge simply because of his profession. He did not know that medical men should be obliged to vaccinate for nothing, no more than they, as professional men or tradesmen, should carry out matters of business without being paid for such transactions."

So here we have, in fact, the good sense of a Poor-law guardian—a desire to see justice done to our profession—opposed and thwarted by the sentiments of one of our own profession! The result of the whole matter is, that the Poor-law doctors in Croydon are told they are well paid for their services at the rate of 1s. 6d. per *successful* case of vaccination; that it is their business to vaccinate every child brought to them, pay or no pay; that doctors are above the meanness of desiring to receive pay for such a work of humanity; that guardians need have no fear of their not doing their vaccinating duty up to the mark; and that Poor-law doctors are sure to vaccinate efficiently, in order to save themselves from the future trouble and risk of attending small-pox cases. For all this the guardians say that they have the answerable authority of the leading medical practitioner in Croydon. Are we not justified in saying that Mr. Bottomley has much injured his professional brethren in this matter?

SINCE the above lines were written, we note that the proposed fee in the Vaccination Bill for Scotland, which has just passed the House of Commons, was by an amendment reduced from 3s. 6d. and 2s. 6d. to 1s. 6d. and 2s. 6d.! For all we know to the contrary, the author of this amendment—*affecting all Scotland*—might have taken his inspiration from Croydon proceedings!

WE have no hesitation in replying to the question which has been put to us: Has a Licentiate of the King and Queen's College of Physicians in Ireland a right to append M.D. to his name? We consider that he is *justified* in doing so. Whether he has or has not the legal right to do so is quite another affair, and one about which we offer no opinion. This College claims the possession of a power of granting the degree of M.D. Its authorities publicly assert the possession of such a right, and they publicly give to their Licentiates the title of M.D. More than this, they engage themselves to protect all their Licentiates against any one who may dispute the right of which they assert the possession. The Licentiates of this College, therefore, stand on a very different footing from that of the Licentiates of the London and the Edinburgh Colleges. These Colleges do not claim any such right. The London College distinctly forbids the assumption by its Licentiates of the title of M.D., if they possess no university diploma; and the Edinburgh College has told the world that its license gives no such powers. We can only add, it is very much to be desired, and

above all for the sake of the Licentiates of the Dublin College, that the question should be finally decided, so that it could be no longer made subject of dispute. We suppose that the way to do this would be for the Dublin College to demand the insertion of the M.D. title by the Registrar on behalf of one of its Licentiates. This would decide the legal validity of the claim.

How fully justified we were in rebuking Mr. Cosmo Logie for rushing into the *Times* as a puffer of the sarracenia as a remedy in small-pox, is shown by a paper lately read by Mr. Marson of the Small-Pox Hospital. Mr. Marson has carefully tried the so-called remedy, and found its effects what we suggested they would probably be—absolutely *nil*. We recommend the report of Mr. Marson to our readers; and the lesson to be learnt from hasty drawing of conclusions on insufficient data to the consideration of that rather numerous class of medical men who are always on the look out for new remedies, and who have not time to discriminate between the *post hoc* and the *propter hoc* in the matter of drug-administration.

A CORONER's jury, as we read in the papers, a few days ago, delivered the following verdict:—

“Death from natural causes; and the foreman stated that the jury were of opinion that there was great want of feeling on the part of Dr. Elliott, in refusing to go upstairs to see the deceased when informed of the state in which she was when he was in the house.”

For such verdicts as these we have to thank our system of gratuitous medical services, and those members of the profession who think it is the doctor's duty to work gratis. The evidence showed that the woman was so badly treated in a workhouse that she left it and went into lodgings. Here she injured herself, and

“A visiting lady, Mrs. Hertner, who called, left a message requesting Dr. Elliott, the medical officer of the district of St. Mary Axe, to come upstairs to see deceased when he visited a little boy who was ill in a room downstairs in the same house. Dr. Elliott replied, ‘The idea of these visiting ladies leaving these messages for me! I shall not go without an order.’ He was told that deceased was very bad; but he still refused to go; and said, ‘Get an order and bring it to me to-morrow morning, and I will see her.’ No order could be got that day, because none were issued after nine in the morning. Deceased died during the night.”

Now, if any one is to blame here, it is clearly the system under which no order is given after nine A.M. If the woman were so exhausted, why did not this good visiting Samaritan take care to have a doctor properly sent for? What earthly claim was there on the services of a wretchedly paid union doctor? The neglect lies at the door of society; and we sincerely trust, in the very cause of humanity, that our medical brethren will resist this constant attempt to obtain their services without pay. There would be

no neglect in any case of this kind if society did its duty; and it is our business to impress this fact upon juries and coroners. If there were any neglect at all, the neglect lay as much at the door of the sapient jury as of any other person. Let the jury, as members of society, instead of bringing empty verdicts like these to salve over their own shortcomings, see that proper provision is made by the community at large for due medical attendance in such cases as these.

THE election of three members of Council of the Royal College of Surgeons of England, in the room of Messrs. Caesar Hawkins and Tatum (retiring by rotation), and Mr. Coulson (resigned), took place on Thursday last. After a long contest, the numbers polled for each were declared to be as follows:—

Lane . . .	199	Hawkins . . .	126
Busk . . .	168	Curling . . .	91
Hancock . . .	153	Tatum . . .	88

The first three gentlemen on the list—all new men in the Council—were, therefore, elected.

THE Universities of Berne and Kiev have been added to the Universities qualifying candidates for admission to the examinations of the Royal College of Physicians of London.

Statistics state that there have been 107 cases of hydrophobia in France in six years. In the Department of the Seine there have been received into the hospitals 94 cases during the last forty years. M. Boudin's researches lead him to conclude, with Hunter, that not more than 5 per cent. of persons bitten by rabid animals become hydrophobic. The accounts kept at Alfort and elsewhere show that, of 100 rabid dogs, only 7 per cent. are of the female sex; but this fact, when investigated, does not seem to be of so great importance; for it would appear that dogs are much more numerous than bitches, and that bitches are generally more often chained up than dogs.

The air of Madrid has a bad reputation. An old Spanish proverb says of it:

“El aire de Madrid es tan sutil,
Que mata a un hombre,
Y no apaga a un candil.”

“The air of Madrid is so subtle that it will kill a man, and yet not put out a candle.” The air of Valencia is, on the contrary, soft and moist, and mild and depressing; and the vegetation is most luxuriant. The effect of the climate on animal life is described in the proverb:

“Carne es verdura;
Verdura es agua;
Hombres son mujeres;
Y las mujeres son nada.”

“The meat is vegetables; vegetables are water; men are women; and the women are nothing.”

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

A SURGICAL operation at the *Royal Infirmary*, in the early part of last month, is of such unusual interest and importance, that, deviating from my ordinary practice of reporting those cases only which I have witnessed myself, I am induced to relate it from the narration of a friend who was present on the occasion. It was an example of that exceedingly rare kind of aneurism called fusiform, consisting of a dilatation of a considerable portion of the axillary artery. The subject of the disease was an artisan about forty years of age, who came into the hospital on the evening of the 7th of May, complaining of a large pulsating tumour which filled up the left armpit, distending the pectoral muscles, and lifting up the shoulder towards the ear. The patient had noticed, several months previous to admission, the existence of a swelling of about the size of an orange, which pulsed strongly, but which caused no particular distress or uneasiness until a few days before his admission, when he was seized one night with severe pain in the arm, and discovered that the swelling had suddenly become greatly increased. It was evident that an aneurism existed, which had burst its sac and become diffused. The arm was now oedematous, and the distension and enlargement were increasing rapidly. The arm was bandaged with flannel, and the patient kept quiet in bed until the next morning, when the tumour was found to be still farther enlarged, so that the shoulder was pushed up towards the ear. There was considerable ecchymosis, with dark livid spots on the skin of the armpit. The pulsation in the tumour had entirely disappeared. Impending external rupture of the tumour, with inevitable fatal hæmorrhage as a consequence, indicated that an immediate operation was imperative. Under these circumstances, as it appeared almost impracticable to reach and tie the subclavian artery in the usual position, Mr. Bickersteth, who had charge of the case, after a consultation with his colleagues, determined to follow a mode of proceeding which has been adopted by Mr. Syme, and which is, in fact, the original operation for aneurism as practised previous to the improved method introduced by John Hunter—namely, to lay open the sac, empty out its contents, and tie the vessel above and below the opening.

Notwithstanding the formidable difficulties which must necessarily attend this plan of procedure, it seemed, under the circumstances, to be the only practicable method of dealing with the case. The steps of the operation were as follows. An incision was made along the outer edge of the sterno-mastoid muscle and through the cervical fascia, enabling an assistant's finger to be placed on the subclavian in the usual position. When the artery was commanded by compression, a free incision was made into the tumour, and the clots cleared out. Owing to the admirable and efficient manner in which this somewhat difficult and critical task of commanding the artery was effected by Mr. Fletcher, very little blood was lost. After a careful examination

of the interior of the aneurism with a view to ascertain the point at which the artery opened into the sac, the operator discovered what, of course, could not have been previously found out, and which materially augmented the difficulties of the case—namely, that the aneurism was fusiform, the dilatation extending from the first rib to the commencement of the brachial artery. In order to obtain access to a sound part of the artery above the dilatation, it was necessary to divide the pectorales major and minor. An aneurism-needle was then passed round the artery about half an inch below the point where it crosses the first rib, after which it was requisite to tie each of the several branches of the artery given off from the sac or dilatation, including the subscapular, the posterior circumflex, and the brachial, all of which bled profusely into the sac until the ligatures were applied. Yet considering the formidable nature of the operation, which occupied from first to last about forty minutes, the amount of hæmorrhage was inconceivable; and, by one of the holdest efforts of surgery, the patient was rescued from a position of imminent peril to one of comparative safety.

A short time after the operation, numbness of the hand and forearm came on; and in three or four days it was evident that the hand would be sphacelate—a result which might naturally be expected from the fusiform character of the aneurism, which necessitated ligature of all the anastomosing arterial branches upon which the surgeon depends for the reestablishment of the circulation after tying the subclavian. The subsequent progress of the case was as favourable as could be anticipated. All the ligatures came away between the twelfth and fifteenth days; the wound contracted well, and is now nearly healed; and the patient is sufficiently recovered to leave his bed and walk about the ward. The hand and the lower third of the forearm are black and dried up, in the condition analogous to that of senile gangrene. This portion of the limb is, of course, doomed; but for the present, at least, the patient is out of danger, and he lives a striking example of what surgical dexterity and skill is sometimes capable of effecting for suffering humanity towards rescue from the very jaws of death.

I am happy to be able to report the satisfactory progress of the Waters Fund. The Liverpool subscription-list has increased from £70, as noticed in my last communication, to about £110; and it is hoped it may ultimately reach from £120 to £150. It is only due to Dr. Stookes, the treasurer, to say that, without at all detracting from the liberality and promptitude with which the profession have responded to this call, the success already achieved is in a great measure owing to the tact and energy with which he has discharged his duty, sparing no pains or trouble in bringing the subject under the notice of our brethren here, and thus affording all who were so disposed an opportunity of contributing. I have heard that at Chester about £100 has been collected from members of the profession, and £300 from the laity (if I may use the expression); at Birkenhead, nearly £20; and at Manchester, about the same sum has been raised; making, at present, a total of about £550 from this district. As it is understood that

the actual expense which will fall upon Dr. Waters is not less than £700, it is evident that, unless further aid can be obtained from the profession in other parts, the original object of the movement—to compensate him to the full extent of his loss—will not be carried out, to say nothing of the proposed testimonial. Although this result cannot be otherwise than a subject of regret, it must nevertheless be consolatory to Dr. Waters himself, as well as to his friends and to all who are interested in the matter, to reflect that, in the neighbourhood where all the parties and circumstances are best known, there has been a most liberal, general, and spontaneous response to the appeal for sympathy and assistance.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association will be holden at Bristol, on Wednesday, Thursday, and Friday, the 5th, 6th, and 7th days of August.

President—GEORGE BURROWS, M.D., F.R.C.P., F.R.S., London.

President-elect—JOHN ADDINGTON SYMONDS, M.D., F.R.C.P., F.R.S.Ed., Clifton.

All the meetings will take place at the Victoria Rooms, Clifton.

WEDNESDAY, August 5th.

1 P.M. Meeting of Committee of Council.

2.30 P.M. Meeting of the General Council.

4 P.M. First General Meeting of Members. The retiring President (Dr. Burrows) will make a few remarks. The new President (Dr. Symonds) will deliver an Address. The Report of Council will be presented, and other business transacted.

9 P.M. Through the kindness of the Committee, a *Conversazione* will be held at the Literary and Philosophical Institution, Bristol.

THURSDAY, August 6th.

11 A.M. Meeting of the Members of the New Council.

12 NOON. Second General Meeting of Members. The Address in Medicine will be read by WILLIAM BUDD, M.D. Papers and Cases will be read.

3.30 P.M. The Address in Surgery will be read by AUGUSTIN PRICHARD, Esq.

The Report of the Medical Benevolent Fund will be presented.

Papers and Cases will be read.

9 P.M. By the kind invitation of the President (Dr. Symonds) a *Soirée* will be held at his residence, Clifton Hill House, Clifton.

FRIDAY, August 7th.

12 NOON. Third General Meeting of Members. The Address in Chemistry in its Relations to Medicine will be given by WILLIAM B. HERAPATH, M.D., F.R.S. Papers and Cases will be read.

6.45 P.M. Dinner at the Victoria Rooms. Tickets One Guinea each. Gentlemen intending to be present at the Dinner are requested to send notice, as soon as possible, to Dr. MARSHALL, 8, The Mall, Clifton.

Members are requested to enter, on arrival, their names and addresses in the Reception Room at the

Victoria Rooms, where cards will be supplied which will secure admission to all the proceedings.

Refreshments will be provided in the Victoria Rooms during the Meetings.

Members who wish for previous information may communicate with Dr. MARSHALL, 8, The Mall, Clifton.

Papers have been promised by T. S. Fletcher, Esq. (Bromsgrove); Graily Hewitt, M.D. (London); Lionel Beale, M.B., F.R.S. (London); G. F. Burder, M.D. (Bristol); W. O. Markham, M.D. (London); B. W. Richardson, M.D. (London); A. P. Stewart, M.D. (London); R. W. Coe, Esq. (Bristol).

Papers and Cases will be read in the order of the dates at which notice of them has been received by the General Secretary.

Alteration of Laws. Notice of the following new Laws has been given by W. O. MARKHAM, M.D.

At each Annual Meeting of the Association, the Secretary shall lay before the first meeting of the Council a List of the Members of the Association, together with a separate List of all Members whose Subscriptions are in arrear, and the amount of Subscriptions due from each Member.

This List shall be at once referred to a Committee, consisting of four or more Members of the Council (three of whom shall form a quorum), together with the President and the Secretary. The Committee shall thereupon proceed to settle the List of Members for the ensuing year, retaining or erasing, as they may think fit, the names of any Members who are in arrear: provided always, that no person shall remain a Member of the Association who is more than two years in arrear. The List of Members thus corrected shall be presented to a subsequent Meeting of the Council, and shall, with their approval, be published immediately after the Annual Meeting.

The Secretary shall in each year, during the first week of June, supply the Editor of the JOURNAL with the names of all those Members of the Association whose Subscriptions have not been paid up to the 31st day of May in each year.

Notice of the following alteration has also been given by Dr. Markham.

In Law 15, for the words "twelve months", to substitute the words "five months".

PHILIP H. WILLIAMS, M.D., *Gen. Sec.*

Worcester, June 30th, 1863.

METROPOLITAN COUNTIES BRANCH.

THE Eleventh Annual Meeting of this Branch will be held at the Crystal Palace, Sydenham, on Tuesday, July 7th, at 3.30 P.M. President-elect: Francis Sibson, M.D., F.R.S.

The members will afterwards dine together.

A. P. STEWART, M.D.,
ALEXANDER HENRY, M.D., } *Hon. Secs.*

London, June 11th, 1863.

SOUTH MIDLAND AND CAMBRIDGE AND HUNTINGDON BRANCHES.

THE Annual Meeting of these Branches combined will take place at the Infirmary, Peterborough, on Thursday, July 9th, at 1 P.M. President-elect: William Paley, M.D.

Gentlemen intending to read papers or cases will oblige by forwarding the titles as early as possible to the Honorary Secretaries,

JOHN M. BRYAN, M.D., Northampton; or
G. M. HUMPHRY, M.D., Cambridge.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
METROPOL. COUNTIES. [Annual.]	Crystal Palace, Sydenham.	Tuesday, July 7, 3.30 P.M.
NORTH WALES. [Annual.]	Royal Hotel, Rhyll.	Tuesday, July 7, 1 P.M.
SOUTH MIDLAND & CAM- BRIDGE & HUNTINGDON. [Annual.]	Infirmary, Peterborough.	Thursday, July 9th, 1 P.M.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Philosophical Institution, Bristol, on Thursday, June 18th, 1863, at 4.30 P.M. There were nearly sixty members present.

The chair having been taken by W. J. CHURCH, Esq., President for the past year, the minutes of the last annual meeting were read and confirmed. Mr. Church then resigned the chair to Dr. FRANCIS KER FOX, President for the ensuing year, who delivered an address, which is published at page 6.

Dr. SYMONDS proposed a vote of thanks to Dr. Fox for his address, which was carried with acclamation.

New Member. Dr. PAINE proposed, and Dr. BURDER seconded—

"That George Robert Cubitt, Esq., of Stroud, be elected a member of the Association and of this Branch." Mr. Cubitt was duly elected.

Report of Council. The Bristol Secretary, Dr. MARSHALL, read the following Report of Council:—

"The Council have again the satisfaction of giving a report of the prosperous state of the Bath and Bristol Branch of the British Medical Association.

"The attendance of both members and visitors at the ordinary meetings has been larger than in any previous year; while the contributions of papers have been so numerous as to exclude the possibility of their being all read.

"The Branch has to lament the death of three of its oldest members: Mr. Soden of Bath (who formerly held the presidential chair); Mr. T. L. Surrage of Clifton; and Dr. Dyke of Chippenham. The Council have further to report the loss of seven members from resignation or nonpayment of subscriptions; but this has been more than compensated for by the addition of thirteen new members, including whom the Branch now numbers 132 associates.

"The following balance-sheet for 1862 shows that the funds of the Branch are in a satisfactory condition:—

<i>Receipts.</i>		
Balance from 1861	.	8 18 2
Subscriptions, 1862	.	15 4 0
		£24 2 2
<i>Disbursements.</i>		
Hire of rooms for meetings.	.	4 16 0
Printer's bill	.	2 11 0
Postage stamps and sundries	.	3 19 0
Donation to Medical Benevolent Fund	.	5 0 0
		£16 6 0
Balance in hand	.	7 16 2
		£24 2 2

"The annual meeting of the parent Association having been announced to be this year held in Bristol on the 5th, 6th, and 7th of August, the Council beg to express a hope that the members of the Branch will cordially unite in doing all that lies in their power to render the meeting successful and agreeable.

"The following gentlemen have been elected to fill up the vacancies in the Council:—*For the Bath District*—C. Coates, M.D.; J. Parsons, Esq.; W. Davies, M.D.; W. Bush, Esq. *For the Bristol District*—A. Prichard, Esq.; W. Morgan, Esq.; J. G. Swayne, M.D.; T. Green, M.D.

"During the past year, the following papers and cases have been communicated:—

"1. On Practical Difficulties in the Diagnosis of Acute Phthisis. By E. L. Fox, M.D.

"2. Five Years Midwifery Experience. By J. Hinton, Esq.

"3. Case of Staphylophary. By F. P. Lansdown, Esq.

"4. Case of Sphacelus of the Tongue. By A. Prichard, Esq.

"5. Case of Retroflexion of the Uterus. By W. M. Clarke, Esq.

"6. Peculiar Case of Injury to the Subclavian Artery. By J. Soden, Esq.

"7. Case of Wound of the Vertebral Artery. By A. Prichard, Esq.

"8. Case of Monstrous Birth. By J. Hinton, Esq.

"9. Case of Obstruction of the Bowels. By J. Beddoe, M.D.

"10. Case of Cæsarian Section. By R. W. Coe, Esq.

"11. Cases of Puerperal Convulsions; with Remarks. By J. G. Swayne, M.D.

"12. Case of Puerperal Convulsions. By S. H. Swayne, Esq.

"13. On the Use of Metallic Ligatures. By W. M. Clarke, Esq.

"14. On a Recent Case of Arsenical Poisoning. By W. B. Herapath, M.D.

"15. Case of Wasting Palsy. By J. K. Spender, Esq.

"16. On the Recent Prevalence of Typhus Fever in Bristol. By S. Martyn, M.D.

"17. On the Prevalence of Itch. By W. Budd, M.D." It was moved by Mr. BARTRUM, seconded by Dr. HERAPATH, and carried unanimously—

"That the report and financial statement just read be adopted."

President-elect. Mr. BUSH proposed, and Mr. CHURCH seconded—

"That Dr. Falconer be elected President-elect of the Branch."

The resolution was carried with acclamation.

Votes of Thanks. A vote of thanks to the Retiring President, Mr. Church, was proposed by Dr. DAVEY, seconded by Mr. STONE, and carried unanimously.

A vote of thanks to the Council was proposed by Dr. BURDER, seconded by Dr. E. L. Fox, and carried unanimously.

Dr. DAVEY proposed, and Dr. BRITTAN seconded, a vote of thanks to the Secretaries of the Branch, Mr. Fowler and Dr. Marshall, for their services during the past year; and that they be re-elected for the ensuing year. This was carried unanimously.

Alteration of Law. Dr. MARSHALL brought forward a proposition of the Bristol Council to the effect that there should be six ordinary meetings of the Branch held annually, instead of four as at present. After some discussion,

Dr. MARSHALL proposed, and Dr. HERAPATH seconded—

"That the seventh law of the Branch, relating to the Branch meetings, stand as follows:—

"That the meetings of the Branch shall consist of six ordinary meetings, to be held at such times as the Council shall direct; and an annual meeting in the summer."

This was carried unanimously.

Representatives in the General Council. The following gentlemen were elected representatives of the Branch in the General Council:—J. S. Bartrum, Esq. (Bath);

W. Budd, M.D. (Clifton); W. J. Church, Esq. (Bath); R. W. Falconer, M.D. (Bath); H. Marshall, M.D. (Clifton); and A. Prichard, Esq. (Clifton).

Medical Education and Provincial Hospitals. Dr. FALCONER proposed, and Dr. GREEN seconded, the following motion:—

“That the Councils of the Bath and Bristol Branch be requested to take into consideration the propriety of memorialising the Medical Council as to the present system of medical education, and its injurious effects upon provincial hospitals, not being recognised schools of medicine.”

This motion, being put from the Chair, was carried.

The proceedings terminated with a vote of thanks to the Chairman.

Dinner. The dinner was held at the Volunteer Club, at half-past six o'clock. Forty-seven members and visitors were present. The usual loyal and professional toasts were given and responded to.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch took place on June 19th, 1863, at the Hen and Chickens Hotel, Birmingham; ALFRED BAKER, Esq., President, in the chair. There were also present thirty-one members.

Mr. DUNCALFE, the retiring President, thanked the members for their courtesy during his year of office, and introduced his successor, Mr. Alfred Baker.

Vote of Thanks to the Retiring President. It was moved by Mr. CLAYTON, and seconded by Dr. WADE, and carried unanimously—

“That the best thanks of this meeting be presented to Henry Duncalfe, Esq., for his courteous conduct as President during the past year.”

Report of Council. Mr. OLIVER PEMBERTON, the Hon. Secretary, read the following report of the Council:—

“The Council of the Birmingham and Midland Counties Branch of the British Medical Association, in presenting its record of the working of the society during the past year, has to congratulate the members on the further development of its scientific position. The bi-monthly meetings have been entirely devoted to the consideration of subjects connected with medical science. The following is a list of the papers read:—

“1. Observations on a successful Case of Compound Comminuted Fracture of the Patella, and of Compound Comminuted Fracture of the Os Calcis. By Mr. J. Houghton.

“2. A Demonstration of the Use of the Laryngoscope. By Mr. F. Jordan.

“3. On Encephaloid Cancer of the Breast. By Mr. O. Pemberton.

“4. On a remarkable Case of Gunshot Wound. By Mr. West.

“5. Historical and Clinical Inquiry into the Relative Merits of the different Methods of Treating Fractures of the Limbs. By Mr. Gamgee.

“6. On the Diagnosis of Retrouterine Hæmatocele. By Dr. Wade.

“7. On two Cases of Cyanosis. By Dr. Foster.

“8. On Excision of the Os Calcis. By Mr. Pemberton.

“9. On the Action of Medicines, singly and combined. By Dr. Nelson.

“10. On Extraction of Bullets. By Mr. Redfern Davies.

“These papers formed only a part of a much larger number offered by the members for reading and discussion. Many valuable contributions to practical medicine and surgery had, therefore, to be postponed, greatly to the regret of your Council. Under these circumstances, it was thought advisable to recommend that more fre-

quent meetings should be held; a suggestion that was unanimously adopted by the members of the Branch in April last. During next session, commencing from October, this important change will come into operation, and meetings will be held for the future during all the winter months. Your Council cannot but anticipate that this new feature in the arrangements will tend greatly to increase the value of the society in the estimation of the profession.

“In medical politics during the past year, there have been few events to which it may be deemed necessary to direct your attention. Perhaps the one most vitally affecting individual interests is that involving the social position of the medical man, as evidenced in the base and cruel prosecutions to which members of the profession have been subjected by their patients. The cases of Mr. Adams and Dr. Waters will long serve to illustrate the painful experiences that may arise in the practice of our calling; and will teach us, that at times no position however eminent, no conduct however blameless, can escape those assaults which emanate from weakness and depravity on the one hand, and from improper countenance and support from amongst our own ranks on the other. Happily, in both these instances, justice triumphed; but no one will fail to appreciate the momentous character of the ordeal through which these eminent men had to pass, or omit to sympathise with those wounded feelings of honour which their unmerited sufferings called forth. In the face of these things—when no one is safe—it may become necessary for the members of this Branch to signify their assent to a movement which shall provide for the better security of the profession against direct attacks.

“From these considerations, your Council pass on to ask you to award to the editor of the BRITISH MEDICAL JOURNAL that high praise which his efforts to support the profession in these and other trials so justly merit, and to acknowledge that ability which has raised the organ of the Association to the foremost rank of journalism.

“In conclusion, your Council records with deep regret the loss of two members by death during the past year—Mr. Howard Chavasse of Sutton Coldfield and Mr. J. Prowse of Nuneaton. In lamenting the untimely removal of Mr. Howard Chavasse, an expression of earnest sympathy is proffered to his father on the loss he has sustained.”

Dr. JEAFFRESON moved, Mr. MALE seconded, and it was resolved,

“That the report of Council now read be received, approved, and entered on the minutes.”

Treasurer's Account. The account for the last year, read by the Treasurer, Mr. T. W. Williams, showed a balance in hand of £26:17.

On the motion of Dr. FAYRER, seconded by Dr. WADE, it was resolved,

“That the financial statement of the Treasurer now read be received, approved, and entered on the minutes.”

Election of Officers. Mr. BARTLEET moved, and Mr. GAUNT seconded,

“That Mr. Henry Douglas Carden of Worcester be elected President-elect for the ensuing year.”

The voting lists having been handed in to the President, the following gentlemen were elected members of the Council for the ensuing year:—*Country Members*—E. Bartleet, Esq. (Camden); B. S. Browne, Esq. (West Bromwich); E. H. Coleman, Esq. (Wolverhampton); G. Fayrer, M.D. (Henley); J. S. Gaunt, Esq. (Alvechurch); J. H. Lakin, M.B. (Sutton Coldfield); G. Lowe, Esq. (Burton-on-Trent); J. E. Male, Esq. (Leamington). *Town Members*—S. W. Burbury, M.D.; M. H. Clayton, Esq.; F. Jordan, Esq.; J. B. Melson, M.D.; L. Parker, Esq.; J. V. Solomon, Esq.; W. F. Wade, M.D.; C. Warden, M.D.

The following gentlemen were elected representatives

of the Branch in the Council of the Association for the ensuing year:—Alfred Baker, Esq.; E. Bartleet, Esq.; H. D. Carden, Esq.; M. H. Clayton, Esq.; H. Duncalfe, Esq.; G. Fayrer, M.D.; J. J. Hadley, Esq.; T. W. Williams, Esq.; O. Pemberton, Esq. (*ex officio*).

Mr. T. W. Williams was elected Treasurer, and Mr. Pemberton Secretary for the ensuing year.

New Members. The following gentlemen, members of the Association, were unanimously elected members of the Branch:—Dr. Anderson, General Hospital, Birmingham; J. R. Brunton, Esq., Redditch; J. Rudd, M.D., Scots Greys; J. R. Roberts, Esq., Children's Hospital; J. Francis Woody, Esq., Tamworth.

President's Address. The President then delivered an address to the members. At its close, Mr. Baker was requested to publish it in the JOURNAL; and a vote of thanks was unanimously passed to him for his admirable address and courteous conduct in the chair.

The members afterwards dined together at the Hotel, under the presidency of Mr. Baker; the vice-chair being occupied by Mr. Carden.

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

The twenty-seventh annual meeting of this Branch was held at the Medical Institution, Mount Pleasant, Liverpool, on Wednesday, June 24th, at twelve o'clock noon; J. R. W. Vose, M.D., President, in the Chair. There were also present fifty-two members and two visitors.

Report of Council. The following Report of the Council was read by the Honorary Secretary, Dr. A. T. H. WATERS.

"In accordance with the usual custom, the Council have to present the members with a brief statement of the present condition of the society, and of their own proceedings during the past year.

"With reference to the first subject, they have the satisfaction to state that the Branch still continues large and prosperous. Several members have been lost during the past year from death and other causes, but these losses have been more than counterbalanced by the number of new members who have joined the society. The present number of members is 214.

"With regard to their proceedings during the past year, your Council have to report that they held a special meeting to consider the resolutions referred to them at the last anniversary. The first of these resolutions related to the proposed institution of an annual course of lectures, to be delivered alternately in Manchester and Liverpool. The Council were unanimously of opinion that the interests of the society would be promoted by the adoption of the proposed plan; and they have accordingly made arrangements for the delivery of the first course of lectures in Liverpool during the ensuing autumn. The second resolution referred to the Council requested them to take into consideration the propriety of appointing a subcommittee, whose duty it should be to encourage a weekly registration of disease in large towns. A committee was accordingly appointed, and a report has been received from them. No practical results have as yet followed their labours, for they have hitherto met with insuperable difficulties in finding members of the profession in the various towns who would undertake to make the necessary returns for carrying out the proposed object. The committee, however, are not without hope that eventually some good result may follow from their exertions. In accordance with a third resolution passed at the last anniversary, your Council considered the desirability of holding district meetings for the reading of papers on medical subjects, and they decided that two such meetings should be held. These meetings took place—one at Chester in December, and the other at Manchester in March. On

these occasions several valuable communications were made. Another resolution which was referred to the Council requested them to take into consideration the propriety of memorialising the General Council of Medical Education and Registration with reference to the publication in *extenso* of the proceedings of the latter body. After giving the subject careful consideration, your Council are of opinion that it is not desirable at present to take any steps in the matter.

"Mindful of the importance of extending the sphere of usefulness of the society, your Council have endeavoured during the past year to procure members from some important towns in the district which have been hitherto but little represented in the society. Their efforts have to a certain extent been attended with success; and they are happy to say that one result of their endeavours has been that they have received an invitation to hold the annual meeting in Lancaster next year, and a proposition to that effect will be laid before you.

"Your Council have to regret the loss, by death, during the past year, of one of their most valued members and a very old friend of the society, Dr. Duncan, who on one occasion filled the office of President; and, although, from failing health, he had not been able to take an active part in the affairs of the society for some years, always showed a warm interest in its welfare.

"Your Council have received a notice of the resignation of the present Honorary Secretary. It will, therefore, be necessary to proceed to the election of a successor.

"In accordance with the new law passed at the last annual meeting, five members of the Council retire annually. The names of the gentlemen who retire this year are, Dr. Duncan, Dr. Dickinson, Dr. Noble, Mr. Sharp, and Mr. Ellis Jones. The four latter gentlemen are eligible for re-election."

Financial Statement. From the financial statement, it appeared that the balance in hand last year was £20:11:4; received since, £21:11; making a total of £42:2:4. Ordinary expenses, £21:17:7; leaving a balance in the hands of the Treasurer of £20:4:8.

Resolutions. The following resolutions were passed.

1. Moved by Mr. BARRY (Liverpool), and seconded by Dr. McNICOLL (Southport)—

"That the Report of the Council now read be adopted and printed, together with the proceedings of this meeting."

2. Moved by Mr. STEELE (Liverpool), and seconded by Mr. DAWSON (Liverpool)—

"That the best thanks of the meeting be given to G. Southam, Esq., the late President; to T. Davies, M.D., and W. T. Callon, M.D., the late Vice-Presidents; and to the Honorary Secretaries and other members of Council, for their services during the past year."

3. Moved by Dr. WILKINSON (Manchester), and seconded by Mr. ELLIS JONES (Liverpool)—

"That the next annual meeting be held in Lancaster; and that E. D. DE VITRÉ, M.D., be appointed President-elect; and T. Howitt, Esq., and A. T. H. Waters, M.D., Vice-Presidents-elect."

4. Moved by Dr. A. T. H. Waters (Liverpool), and seconded by Mr. SOUTHAM (Manchester)—

"That Dr. W. Roberts of Manchester be appointed General Secretary for the ensuing year; the appointment to commence from the second day of the annual meeting of the Parent Association in August next."

5. Moved by Dr. CALLON (Liverpool), and seconded by Dr. MACINTYRE (Liverpool)—

"That the following gentlemen be appointed Local Secretaries for the ensuing year:—W. H. Manifold, Esq. (Liverpool); J. Sharp, Esq. (Warrington); J. P. Scowerth, Esq. (Southport)."

6. Moved by Mr. DAGLISH (Wigan), seconded by Dr. MACNAUGHT (Liverpool)—

"That the following gentlemen be appointed representatives of the Branch in the General Council:—J. Dickinson, M.D.; T. Howitt, Esq.; Ellis Jones, Esq.; A. Stookes, M.D.; H. Simpson, M.D.; G. Southam, Esq.; J. Vose, M.D.; A. T. H. Waters, M.D.; A. Waters, M.D.; A. E. Wilkinsoo, M.D.; and W. Roberts, M.D., Secretary."

7. Moved by Mr. TURNER (Manchester), and seconded by Mr. BATTY (Liverpool)—

"That this meeting accepts with regret the resignation of Dr. A. T. H. Waters as Honorary Secretary of the Branch, and is of opinion that the best thanks of the Branch are due to him for the valuable services he has rendered during the six years he has held the appointment."

Officers and Council of the Branch. The following gentlemen were appointed members of Council for the year, in addition to the President (Dr. Vose), the Vice-Presidents (Drs. Martland and G. Turner), and the Honorary Secretary (Dr. W. Roberts):—W. T. Callon, M.D. (Liverpool); T. Davies, M.D. (Chester); L. E. Desmond, Esq. (Liverpool); J. Dickinson, M.D., F.R.S. (Liverpool); R. Flint, Esq. (Stockport); H. Halkyard, Esq. (Oldham); Ellis Jones, Esq. (Liverpool); E. Lund, Esq. (Manchester); P. Macintyre, M.D. (Liverpool); G. Mallet, Esq. (Bolton); T. Mellor, Esq. (Manchester); D. Noble, M.A., M.D. (Manchester); A. Ransome, M.A., M.B. (Manchester); J. Sharp, Esq. (Warrington); H. Simpson, M.D. (Lymm); L. Spencer, M.D. (Preston); A. B. Steele, Esq. (Liverpool); J. Vose, M.D. (Liverpool); A. T. H. Waters, M.D. (Liverpool); M. A. E. Wilkinson, M.D. (Manchester).

Papers. The following papers were read.

1. Observations on Thoracic Aneurism, with Cases. By A. T. H. Waters, M.D.

2. On a Case of Popliteal Aneurism cured spontaneously. By J. Hakes, Esq.

3. On Vaccination and Revaccination. By A. B. Steele, Esq.

4. On the Treatment of Rheumatic Fever. By J. B. Nevins, M.D.

5. On a Case of Suppression of Urine. By T. Turner, Esq.

Votes of Thanks were passed to the readers of papers, and to the Council of the Medical Institution for the use of their rooms.

Dinner. The members subsequently dined together at the Adelphi Hotel; Dr. Vose in the Chair. About fifty gentlemen sat down.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

The annual meeting of the East Anglian Branch was held at the Town Hall, Yarmouth (by the kind permission of the Mayor), on Friday, June 26th. Twenty-six members were present.

SPENCER FREEMAN, Esq., commenced the business by introducing Dr. COPEMAN of Norwich, the President, who thanked the meeting for the honour conferred on him, and assured them of his intention to perform his duties to the best of his ability. He then remarked on the importance of intellectual culture in raising the status of the medical profession, and gave an address, which will be published.

Report of Council. Mr. J. B. PITT of Norwich, the Honorary Secretary, read the following report:—

"In presenting their accustomed annual report, the Council congratulate the members on assembling for the first time in the interesting town of Great Yarmouth; and hope that at some future period, when they again meet in this town, a resident member will fill the office of President.

"Your Council deem it their duty to express their satisfaction with the manner in which the JOURNAL OF

the Association continues to be conducted; and your Council have also the pleasure to state that the Branch still continues to enlarge, and they feel that a little exertion on the part of members would be the means of increasing the society, and earnestly impress upon them the importance of their endeavouring to procure new associates."

Resolutions were passed as follows:—

1. Proposed by Dr. DURRANT, and seconded by Mr. CROSSE—

"That the thanks of this meeting be given to Spencer Freeman, Esq., the retiring President, for his services to the East Anglian Branch of the British Medical Association during his year of office."

2. Proposed by Mr. CADGE, and seconded by Dr. VORES—

"That the members of the Council elected by the Branch be continued; and that the name of C. C. Aldred, Esq., of Great Yarmouth, be added; the President and President-elect being the representatives in the General Council during the year."

3. Proposed by Dr. KIRKMAN, and seconded by Mr. CLOUTING—

"That the best thanks of this meeting be given to the members of the Council and the honorary secretaries for their services."

4. Proposed by Dr. RANKING, and seconded by Dr. CHEVALIER—

"That the next annual meeting be held at Bury St. Edmunds; and that W. E. Image, Esq., be President-elect."

Papers. The following papers were read:—

1. Case of Encephaloid Disease of the Bladder, with remarks on Hæmaturia, its Semieiotic Value and Treatment. By W. H. Ranking, M.D.

2. Two Cases of Excision of the Knee-Joint in Children. By T. W. Crosse, Esq.

3. Remarks on Traumatic Gangrene. By W. Cadge, Esq.

4. Observations on the Value of Diagnostic Signs of Incipient Phthisis; and on the Remedial Management of the Disease generally. By C. M. Durrant, M.D.

5. On the Management of Flooding in Placental Difficulties. By R. Martin, Esq.

6. Case of Double Amputation of Legs and Feet in a Little Child; showing the great Power of Reparation at a very Early Age. By C. B. Rendle, Esq.

These interesting papers and cases gave rise to considerable discussion. A vote of thanks was passed to the readers, with a request that they would allow their papers to be published.

Several letters were read, and the meeting separated.

Dinner. A large party afterwards dined together at the Royal Hotel, when the usual toasts of loyal and professional character were drunk, under the able presidency of Dr. Copeman.

Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, JUNE 1st, 1863.

B. G. BABINGTON, M.D., F.R.S., in the Chair.

REPORT OF THE TRIAL OF SARRACENIA PURPUREA, OR THE PITCHER PLANT, IN SMALL-POX. BY J. F. MARSON, ESQ.

Mr. MARSON's communication was as follows.

A communication, seemingly of great promise, from Mr. Chalmers Miles, of the Royal Artillery, was read some time since before a meeting of this Society, on the Use of *Sarracenia Purpurea* in Small-Pox. The specimens of the plant which accompanied the communication, were submitted to me for trial at the Small-Pox Hos-

pital; the root being the part of the plant particularly recommended for use.

The public generally and the profession ought to feel very much obliged to Mr. Miles for the great trouble he took in bringing the subject before them; and although I shall not, unfortunately, be able to report favourably on the use of this plant in small-pox, I feel that Mr. Miles is just as deserving of our thanks for the great trouble he has taken, and for the expense, I have no doubt, he has been put to, in gaining the particulars stated in the communication in question, as if the remedy had succeeded ever so well.

The root was said to be the part of the plant that when made into a decoction afforded the best form of giving the medicine. There was about enough for three persons only in the canister transmitted by Mr. Miles to this country from Nova Scotia, and given to me. I had, therefore, to make up my mind what were the most desirable cases of small-pox to test its efficiency in. I fixed on, first, a malignant case—one of those attended with hæmorrhage from the mucous surfaces; second, a severely confluent case, such as my experience has taught me usually dies, owing to the great amount of suppuration; and third, if possible, a corymbose case—one of those rather rare and nearly always fatal cases of small-pox.

To give the remedy a fair trial, it was necessary to have the case on which to try it in the early stage of the disease, during the first few days of eruption.

There was but little small-pox in London at the time when the plant was first submitted to me for trial; and although I was on the watch for such cases as I have mentioned, several months elapsed before I had a suitable opportunity of trying the efficacy of the alleged remedy. Of course, I wished to meet with the cases I had fixed on, free from any suspicion of their having been vaccinated. This was absolutely necessary; because I know what great influence vaccination has in altering what may be called the normal course of small-pox by modifying it.

After several disappointments, unnecessary further to detail, small-pox became epidemic in the autumn of last year, and the opportunities became numerous of trying the sarracenia.

About the same time, Mr. Miles returned to this country, and he was good enough to write to me, and place at my disposal any amount of the sarracenia I might require, to be forwarded through the agency of Messrs. Savory and Moore.

I tried the decoction of sarracenia, made from the root by simmering an ounce in a pint and a half of water for four hours, until reduced to a pint; and a quarter of a pint was usually given for a dose twice a day, for two days or more. I also gave in some cases the liquor sarraceniæ supplied by Messrs. Savory and Moore. In all, fifteen patients have been treated with the sarracenia; such cases having been selected for their severity as, I believe, would not get well under ordinary treatment. They have all died.

The cases were selected on admission in the early stage of the disease, on account of the severe symptoms manifested, and because I felt it was of no use to try the efficacy of the sarracenia on mild cases, or vaccinated cases, which I knew very well would recover without anything being done for them beyond the ordinary care of such cases—by giving salines, if required, occasional aperients, and suitable diet, etc.

I cannot say that the sarracenia had any effect whatever. It did not save life; it did not modify in the least the eruption of small-pox; it did not influence any of the secretions; it did not increase the secretion of urine; in only one instance it seemed to act on the bowels; the seeming effect might, however, easily have been from other causes.

The particulars of the fifteen cases taken daily at the

time of the trial of the sarracenia, are appended to this report. They would be perhaps rather tedious to the members of the Society to read in detail; but I will run over two or three of the cases, to show how the notes were taken.

Two cases have been admitted into the Hospital that had taken a decoction of the leaves and stems of the sarracenia before admission. The first, a very mild case, having four vaccine cicatrices, was highly modified, I believe, by the vaccination. The second case was confluent, without vaccination; it was not severely confluent, and was wholly unmodified. They both recovered. The recovery might perhaps by some be attributed to the sarracenia; but I believe it had nothing to do with it. The vaccinated case was, as I have said, very mild, in consequence, I believe, of the vaccination. As to the second case, about half our confluent unvaccinated cases recover with ordinary treatment.

In conclusion, I may state that, had I found the sarracenia do any good, I should have taken an earlier opportunity of reporting the fact to the profession; as it failed, I thought it well to defer this report, that others might, without bias, try the plant during the present epidemic of small-pox, and favour us with their opinion of its reputed power of controlling the course of small-pox in its severe forms.

A paper was also read by Dr. E. R. Harvey, "On the Outbreak of Typhoid Fever at the Village of Wing, Berks."

In the discussion which followed the reading of these papers, Dr. Waller Lewis, Dr. Logie, Dr. Chowne, Mr. J. C. Agnis, Mr. Acton, Dr. Copland, Dr. Buchanan, and Mr. Radcliffe, took part.

Correspondence.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—Permit me space to inform the Poor-Law Medical Officers that the Select Committee on Poor Relief has again been nominated, and it consists of the same members as last year. I have forwarded to the House of Commons a statement in reference to the evidence delivered by Mr. Cane last Session; and I feel convinced that, after its perusal, the most sceptical must admit there is great need of considerable changes being made in the medical relief of the poor.

Since my last letter, nine Poor-law medical officers have sent subscriptions; and I hope now that the Committee has been re-appointed, a little more life will be infused into our proceedings, and that I shall be placed in a position to call a public meeting at any moment, should it be deemed necessary; but, with a debt of about £25, I do not feel justified in incurring further personal liability; and therefore, the responsibility of further active measures must depend upon the liberality of the Poor-law medical officers themselves.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, June 23rd, 1863.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SIR,—Having this day read your editorial remarks upon the assumption of the title of M.D. by non-graduates, which appears to me to have been written in a fair and kindly spirit, I am induced to ask your advice under the following circumstances.

Some four years ago, I passed the King and Queen's College of Physicians in Ireland. I surrendered my

Apothecaries' License, as bound to do by the laws of the College, and received a diploma, in which I am told I am a Doctor of Physic. I every year receive the official register of the College, directed to me as M.D., and adding M.D. to my qualification (see enclosure).

In answer to an inquiry some time ago, addressed to the President, as to the responsibility of assuming the title, I am informed by letter, bearing the College seal, that I am entitled to call myself M.D., and that the College will protect me, and try the question against all comers who may feel disposed to dispute the point.

Now, sir, without asking you to give a legal opinion as to the right of the College to do this or that, am I, in your opinion, as an English gentleman, and a member of an honourable profession, justified in signing after my name the words M.D.?

I am, etc.,

A PHYSICIAN.

Lincoln, June 20th, 1863.

MR. BOTTOMLEY AND VACCINATION.

LETTER FROM ALFRED G. ROPER, ESQ.

SIR,—At the annual meeting of the South-Eastern Branch of the Association, held at Rochester on Wednesday last, Mr. Bottomley is reported in the *Croydon Chronicle and Surrey Standard* to have expressed himself in the following terms:—

"I maintain that it is the duty of every medical man connected with Poor-law Guardians to vaccinate without fee or reward"; and that "he never received a penny in his life."

In the published statement of the accounts of the Croydon Union for the year ending Lady-day 1847—Mr. Bottomley being at that time medical officer—I find the following entry:—

"Vaccination fees: G. Bottomley, £10:11:0."

I think it but fair to Mr. Bottomley that he should have the opportunity of explaining this apparent discrepancy between his past practice and his present views and statements.

I am, etc.,

ALFRED GEO. ROPER.

Croydon, June 30th, 1863.

TREATMENT OF "HOUSEMAID'S KNEE".

SIR,—I have lately had a case of enlarged bursa of the knee. On my first visit, I punctured it with an exploring needle, and let out a quantity of serum. This had not the effect of reducing the size materially. Pressure was then applied by means of leather strapping and bandage. On my way home, it occurred to me that I had read of some successful treatment of "housemaid's knee" in the *BRITISH MEDICAL JOURNAL*; and, upon referring, I found the article by Mr. R. W. Martyn of Martock. I resolved to give it a trial; and, in ten days after puncturing, I took off the strapping, and found the bursa still of considerable size. I then applied the ammoniacal plaster as recommended by Mr. Martyn, and allowed it to remain about a fortnight; and, upon removing it, found the swelling entirely gone, and a small substance remaining, which felt like a small piece of cartilage of about the size of a bean. Strips of plaster of ammoniacum on leather were again placed over the knee; and, at the end of another fortnight, every vestige of disease had disappeared.

As I am indebted to Mr. Martyn for the successful result of this case, I think I may beg a small space in the *JOURNAL* for its publicity, as much benefit may be derived by suffering humanity if gentlemen be induced to make successful treatment in troublesome cases known.

I am, etc., S. F.

Milverton, Somersetshire, June 19th, 1863.

Medical News.

ROYAL COLLEGE OF PHYSICIANS. At a general meeting of the Fellows, held on Thursday, June 25, 1863, the following gentleman, having undergone the necessary examination, were duly admitted members of the College:—

Day, Edwin Edmund, 42, Curzon Street, May Fair
Dickson, Jno. Robinson, M.D., New York, Kingston, Canada West
Falls, William Stewart, M.D. St. And., Bourne-mouth
Head, Edward A. H., M.B. Lond., 44, Harley Street
Johnston, William Woods, M.D. Edin. (of Java), 21, Clifton Gardens, Maida Hill
Playfair, Wm. Smoult, M.D. Edin., 8, Princes St., Hanover Square

APOTHECARIES' HALL. On June 25th, the following Licentiates were admitted:—

Butler, James, Great Bridge, near Birmingham
Cox, Albert George, Crewkerne, Somerset
Moore, Thomas, Wilmslow, near Manchester
Thomas, Richard

At the same Court, the following passed the first examination:—

Grewcock, George, University College
Shorts, William Burt, Charing Cross Hospital
Snow, William V., University College

APPOINTMENTS.

LEISHMAN, William, M.D., appointed Professor of Medical Jurisprudence in Anderson's University, Glasgow.

McDOUGALL, John, M.D., appointed House-Surgeon to the Greenock Hospital.

WESLEY, John S., Esq., elected Resident Medical Officer to the St. Pancras and Northern Dispensary.

POOR-LAW MEDICAL SERVICE.

DAVIS, Frank J., L.K.Q.C.P.I., to the Swords Dispensary District of the Balrothery Union, co. Dublin.

WOOD, Henry B., M.D., to the Cranbrook District and Union House of the Cranbrook Union, Kent.

ARMY.

BARRON, Staff-Surgeon L., M.D., to be Staff-Surgeon-Major, having completed twenty years full-pay service.

CALVERT, Staff-Assistant-Surgeon G., to be Staff-Surgeon, *vice* C. Martin.

ROYAL NAVY.

DAVIDSON, James, M.D., Surgeon, to the *Revenge*.

HUTCHINSON, James, Esq., Acting Assistant-Surgeon (supernumerary), to the *Euryalus*.

ROSS, W., M.D., Surgeon, to the *Meane*.

SUTHERLAND, G. W. J., Esq., Assistant-Surgeon, to the *Rifleman*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

BURD, E., M.D., to be Assistant-Surgeon 1st Shropshire A.V.

To be Honorary Assistant-Surgeons:—

BAYLEY, J., Esq., 1st Shropshire A.V.

SPURRELL, F., Esq., 12th Kent R.V.

MILITIA.

MIDWOOD, W. B., Esq., to be Assistant-Surgeon 6th Regiment Lancashire Royal Militia.

DEATHS.

HALL. On June 27th, at Neckinger House, Laura, wife of Nathaniel F. Hall, Esq., Surgeon.

*JONES, John, Esq., at Derby, aged 75, on June 23.

*KEMP, Charles G., Esq., of Leicester, at Kirby Muxloe, Leicester, aged 32, on June 25.

MARTYN. On June 26th, at 6, Trevor Terrace, Knightsbridge, aged 2, Herbert R., third son of William Martyn, M.D.

MR. ADAMS'S EXPENSES. The law expenses of Mr. Adams's action are stated to be £1,011:9:4. The subscriptions at present received do not yet amount to £400.

THE BRITISH ASSOCIATION. The Prince of Wales regrets that he is unable to attend the meeting of the British Association at Newcastle, in August. The meeting opens on August 26th; Sir W. Armstrong being president.

THE GLOUCESTER ASYLUM. Dr. Williams has been forced to resign the office of superintendent of the Gloucester Lunatic Asylum, in consequence of injuries received some years ago through the bite of a patient.

THE LOCK HOSPITAL. Mr. Gascoven will, as a matter of course, succeed Mr. H. Lee at the Lock Hospital. The following gentlemen are, we understand, in the field for the vacancy thereby occasioned: Mr. Maunder, Mr. Shillitoe, Mr. De Méric, and Mr. Fairlie Clarke.

MR. EWART'S BILL for decimalising the existing system of weights and measures, and establishing an accordance between them and those of foreign countries, on Wednesday last passed a second reading in the House of Commons, amidst much cheering.

SHEEP, ETC., CONTAGIOUS DISEASES PREVENTION BILL. On the motion of Mr. Holland, on Wednesday last, the order for the second reading of this bill was discharged, the government undertaking to introduce a bill continuing the present Act until next session.

THE QUEEN'S HOSPITAL, BIRMINGHAM. Mr. Sands Cox's term of office as surgeon to the Queen's Hospital having expired, a vacancy occurs in the surgical staff. Mr. Furneaux Jordan, assistant-surgeon to the hospital, and Professor of Anatomy at the Queen's College, is the unopposed candidate.

PREVENTION OF ACCIDENTAL POISONING. A bill for the prevention of accidental poisoning has just been printed. It enacts that all substances of a poisonous nature shall be sold in glass bottles, on which labels are to be affixed with the word "Poison," and directions for use distinctly marked thereon.

MILLINERS AND DRESSMAKERS. The Earl of Shaftesbury gave notice in the House of Lords on Monday last, of his intention to move an address to the Crown praying that an inquiry into the physical and moral condition of milliners and dressmakers be made by the Royal Commission now sitting, on the state of children and young persons in trades and manufactures not regulated by law.

ROYAL COLLEGE OF PHYSICIANS. At a general meeting of the Fellows held on June 25th, the following officers were elected for the ensuing year:—*Censors*—G. O. Rees, M.D.; E. L. Birkett, M.D.; C. West, M.D.; C. Handfield Jones, M.B. *Treasurer*—James Alderson, M.D. *Registrar*—H. A. Pitman, M.D. *Examiners*—(a) *On the Subjects of General Education*, J. Spurgin, M.D.; W. A. Guy, M.B.; R. G. Latham, M.D.; (b) *On the Subjects of Professional Education*: Anatomy and Physiology, F. Sibson, M.D.; W. S. Kirkes, M.D.; Materia Medica, Chemistry, etc., A. B. Garrod, M.D.; W. Odling, M.B.; Principles and Practice of Medicine, W. E. Page, M.D.; J. R. Bennett, M.D.; Principles and Practice of Surgery, J. E. Erichsen, Esq., F.R.C.S.; F. Le Gros Clark, Esq., F.R.C.S.; Midwifery and the Diseases peculiar to Women, A. Farre, M.D.; H. Oldham, M.D. *Librarian*—W. Munk, M.D. *Curators of the Museum*—J. Alderson, M.D.; P. Black, M.D.; W. Wegg, M.D.; F. Sibson, M.D.

BETHLEHEM HOSPITAL. In the House of Lords, on June 26th, the Earl of Shaftesbury presented a number of petitions in favour of the removal of Bethlehem Hospital from its present site, and proposed a return of the annual amount of the revenues during the last ten years administered by the authorities of Bethlehem Hospital; secondly, the total amount of money received by the hospital from parliamentary grants; thirdly, the average number of patients in the hospital in each year of ten years, apart from the criminal patients; fourthly, the total number of the governors; fifthly, the number of special meetings since January 1863, in reference to the removal of Bethlehem Hospital, and the number of governors present on each occasion; and, sixthly, the questions proposed and the divisions taken. He said he

brought the question forward because the property and the administration of it were not private, but altogether of a public nature, and open to observations in the legislature; and proceeded to point out the absolute necessity of steps being taken to remove Bethlehem Hospital from the site now occupied by it. He pointed out objections to the present site of the building, and to its construction. Another point was that a very great increase had taken place in the number of lunacy cases, and this was an argument for increased accommodation. The medical profession, with one mind, were of opinion that Bethlehem should be removed; and this removal was extremely desirable as affording facilities for establishing a medical school of lunacy. He maintained that their lordships could not do wrong to a single individual by acceding to the prayer of the petition, which represented the claims of half a million, but it might do wrong by declining to accede to its prayer. In conclusion he begged to move for the returns of which he had given notice. Earl Granville said there could be no objection to the production of the papers asked for; most of the statements made by the noble earl were so consistent with good sense that he did not anticipate that any reply to them could be made. Indeed, the fact that, although many of the governors of Bethlehem Hospital were members of their lordships' house, not one of them stood up to contradict his statements, showed that they were supported by the force of public opinion. He hoped sincerely that the speech just made would have an effect so as to produce a wholesome influence which would react on the governors of the hospital. The motion was agreed to.

CINCHONA PLANTS IN INDIA. The advantages which the important and beneficial measure of introducing cinchona cultivation are likely to confer upon India may be considered under three heads:—1. In their bearings in relation to the State, by providing an abundant and certain supply of bark for the use of hospitals and troops, and effecting a saving of many thousands of pounds. 2. As a commercial speculation, and a means of adding to the resources of the country. And, 3, though not least, as a boon to the people, by bringing the remedy within the reach of frequenters of jungles, and of the native population generally. The government, by working their own plantations, will eventually save at least £20,000 a year, while they will secure a large and unfailing source of quinine supply for their own servants, the importance of which it is impossible to exaggerate. Dr. Macpherson, of Calcutta, tells us that since quinine has been extensively used among the troops in India, there has been a steady diminution of mortality; and whereas, in 1830, the average percentage of deaths to cases of fever treated was 3.66, in 1856 it was only 1 per cent. in a body of 18,000 men, scattered from Peshawur to Pegu. We next come to the consideration of cinchona cultivation, in its commercial aspect, and as a good investment for capital. Private enterprise will be supplied with plants from the government nurseries on the Neilgherries; 20,000 are to be sold this year, at four annas (sixpence) a piece, and next year a much larger quantity will be available. As many as 35,000 have already been ordered by companies and private planters, and there can be no doubt that, as soon as land can be had, the demand will be almost unlimited. When it is considered that it will not cost more than two annas (threepence) to produce a pound of red bark, which is now selling at from half-a-crown to eight shillings in the London market, there is every reason to think that men of business will not overlook so promising an investment, and that the great difference between the cost of production and the value of the produce will give cinchona cultivation a good name as a safe speculation, in combination with coffee, the former beginning at the upper limit of the latter in the same clearing. (*Social Science Review.*)

Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; LECTURER ON
PHYSIOLOGY AND PATHOLOGY AT CHARING CROSS
HOSPITAL MEDICAL SCHOOL; AND ASSISTANT-
PHYSICIAN TO THE HOSPITAL.

LECTURE VII.—ON PLEURISY.

Serous Inflammations point to Blood-poisoning.
Case I. Prognostic Value of Change in Physical Signs. Ægophony dependent on Thickness of Fluid. Ægophony remaining after Absorption of Fluid; its Explanation. Increased Depression of Inter-costal Spaces in Receding Hydrothorax. Ægophony not generated at Edge of Fluid.

THE subject of to-day's lecture, gentlemen, is one which I think very well illustrates the general truth that Pathology is subordinated by Physiology—that the latter dominates the former—that the circumstances that determine the diseases to which a part is liable, and the particular kind of morbid agencies to which it is obnoxious, are the physiological anatomy of that part, and the function which it fulfils. Parts that are physiologically analogous are affected with similar morbid tendencies; and thus a natural physiological scheme becomes a natural, and the only natural, nosological one.

If I were asked what was the commonest morbid cause, which, above all others, had a tendency to generate serous inflammations, I should say, without hesitation, some state of blood-poisoning. We have serous inflammation from uræmia; we have serous inflammation from pyæmia; we have serous inflammation from the specific toxæmias of the eruptive fevers; we have serous inflammation from the presence in the blood of the *materies morbi* of rheumatic fever; and in the cases before us we have serous inflammation from a condition which I shall show you presently is, essentially, a veritable blood-poisoning.

The cases to which I wish to direct your attention are cases of pleurisy; by which we mean, as you know, inflammation of the membrane that lines the cavity and covers the viscera of the thorax. One case is that of a man lying in bed No. 8 of Robertson Ward; the others those of a young man and young woman whom we have seen among the out-patients, and who have refused to come into the hospital.

CASE I. George Franklin, aged 32, by occupation a wine-cellar-man, engaged in washing, corking, and packing bottles in a damp cellar; married; has had two children; is what he calls moderately temperate—that is, is not frequently drunk, but thinks he averages a bottle of wine a day, which his occupation gives him great facilities for obtaining;—in fact, the men engaged in his business are not limited as to what, or how much, they drink, as any attempt at restricting them would be in vain. His health has always been good, with the exception of severe colds, to which he has for some years been liable, and which he attributes to his

occupation, which exposes him to great alternations of temperature, throwing him into sweats from the loads he carries, and then plunging him into cold damp cellars to pursue his amphibious occupation of bottle-washing.

Six weeks ago, in this way, he caught one of these colds, was feverish, with pains in his back and limbs, and suffered from cough, spitting, and shortness of breath. He worked on, however, through it for a week, but was then obliged to give over; and, after applying to a hospital and obtaining no relief, went home, took to his bed, and placed himself under medical treatment. In a fortnight he was sufficiently well to resume his employment, though very weak. On returning to his work, he was seized with stabbing pains in his right side, and an increase of the shortness of breath he has suffered from from his first cold. The pain was not constant, but only occasional, and was chiefly brought on by exertion and attempting to take a deep inspiration. It was as if two knives were plunged into him, one beneath the right floating ribs, between them and the crest of the ilium; and the other just to the right of the right nipple. The pain was so sudden and so severe that it would cause him to cry out, and bring him short up, whatever he might be doing. In the morning he could hardly get out of bed on account of this pain, and, when out, it was some time before he could get himself upright. He went on working for ten days in this way, and then was so bad that he applied to this hospital, and was admitted, eleven days ago—that is, last Friday week, May 8th.

I did not see him until the following Sunday afternoon, two days later, when, happening to be in the Ward, my attention was attracted by a man who was constantly yelling out and starting with pain. This man was the patient, and this was my first introduction to him; I found that he was placed under my care. I immediately set to work to discover what was the matter with him, and found I had not far to search. From his rapid breathing, and from the temporary stoppage of his breath that each plunge of pain produced, it was quite clear that his malady was respiratory. I at once stripped him, and discovered the following physical signs:—Absolute dullness over the whole of the back of the right lung; no respiratory sound whatever in this situation; no vocal fremitus; voice-sound distant and hardly audible, but not otherwise modified; no ægophony. In front on the same side, the dullness extended as high as the fourth rib, up to which situation the voice was ægophonic; above this point percussion was resonant, and the voice-sound natural or slightly bronchophonic; but there was hardly any breath-sound of any kind. On the left side, the breathing was in every way natural, except that it was compensatory, and that at the lower margin of the lungs behind there was a fringe of moist subcrepitus. Decubitus dorsal; can lie neither on the right side nor on the left. Expectoration small in amount, and large bronchial in character—firm grey mucus. Cough but slight; pulse 115; respiration 31, superficial; tongue dry; thirst; no appetite; physiognomy anxious and exhausted.

The physical signs left no doubt that the right pleura was full of serum, the result of acute pleurisy, from which the man was still suffering. I ordered him ten minims of tincture of opium, the same quantity of chloric ether, and a grain of quinine, every four hours; turpentine fomentation to the right side and back night and morning.

May 11th. Much the same; complains of feeling light-headed, and of seeing a lot of people sitting down and talking to him whenever he dozes. Pain a trifle better. A trace of ægophony could be heard at the top of the right lung behind.

May 12th. Pain decidedly better. Ordered to take the sedative only three times a day, instead of every

four hours as before. On examining the right lung behind, a considerable change is found to have taken place. *Ægophony* is heard over nearly the whole of it, passing at the apex into bronchophony, and at the base into loss of all voice-sound; bronchial breathing of flat pitch, characteristic of hydrothorax, coextensive with it, and the dulness of percussion considerably reduced in the supraspinous region. Crepitus at base of left lung increased. Dyspnoea less urgent.

May 13th. The patient has now had on five turpentine fomentations—on Sunday night, Monday morning, Monday night, Tuesday morning, and Tuesday night; and so effectually have they acted that they have taken the skin off his back. The pain is nearly gone, but still gives him occasional stabs when moving or taking a deep breath. Still feverish and semi-delirious if he dozes. Physical signs much the same.

On the 15th, the report of the physical signs was as follows:—Percussion dull in the lower two-thirds of the right side behind; *ægophony* from the base of the lung to a point opposite the posterior border of the scapula, midway between the inferior angle and the base of the spine; breathing highly bronchial coextensive with the *ægophony*; on the left side, respiration above compensatory, below accompanied by slight moist sounds.

On the 16th, the report is, that the other physical signs being much the same, the level of the limit of *ægophony* has receded nearly to the inferior angle of the scapula. Compound iodine ointment to be rubbed into the left side of the back night and morning.

On the 18th, the report is, that, the area of dulness is rather less, and that the level of the limit of *ægophony* has subsided still lower. Pulse 90; respiration 24. Ordered—the opium to be reduced from ten minims to five, to be taken with two grains of quinine and half a drachm of compound sulphuric ether three times a day.

May 20th. The bronchial breathing of the affected side has nearly disappeared, and in its place normal respiratory murmur is gradually emerging. In the lower part of the lung, there is still no breathing. Percussion-dulness undiminished. The *ægophonic* twang not so marked, but its area undiminished—distinctly heard as high as between the lower angle and spine of the scapula. Vocal fremitus still abolished below, but exaggerated in the upper fourth of the lung. The signs in front are the same as behind, but at a lower level. In his general condition, the man is improved in every way. Pulse 84; respiration 20.

There are several interesting points in relation to the physical signs in this case.

1. The *order* in which these physical signs have changed, and the prognostic value of these changes. When I first saw this man on the Sunday afternoon, there was a general negation of everything on the right side of the chest—no heart-sound of any kind, no vocal fremitus, no voice-sound, and dulness absolute and everywhere, except at the apex in front. Soon, however, the voice-sound has reappeared, but found to be of a peculiar character, having a bleating twang which we call *ægophony*; respiratory sound is again audible, but it is a tube-sound, and not a parenchyma-sound, and shows merely that there is a certain air-tide in the bronchial tubes, and not that the spongy lung is re-inflated; at the apex vocal fremitus has reappeared, while percussion-dulness has receded from it. Still later, true respiratory murmur has emerged from its temporary obscuration, while the tube-sound that had supplanted it has vanished; nevertheless, the percussion-dulness has hardly appreciably diminished, and the *ægophonic* twang, though less marked, and the absence of

vocal fremitus, still continue. Thus, as far as this case has progressed, we may divide the physical signs into three stages:—

First Stage.

Percussion—Absolutely and universally flat.

Palpation—No vocal fremitus.

Voice—Distant, hardly audible; no *ægophony*.

Breath—No breath-sound of any kind.

Second Stage.

Percussion—Still dull over lower three-fourths of chest.

Palpation—Fremitus reappearing above; none below.

Voice—*Ægophony* well developed.

Breath—Bronchial blowing of flat pitch.

Third Stage.

Percussion—Dulness receding, but very little.

Palpation—Fremitus exaggerated above, still none below.

Voice—*Ægophonic* twang less strong.

Breath—Respiratory murmur reappeared. Bronchial breathing nearly gone.

Now what do we learn by all this?

We learn, in the first place, that an absence of normal sounds indicates a worse state of things than a modification of them; that the worst of all physical signs are negative ones; that a total absence of voice-sound indicates a more aggravated condition than *ægophony*, and a total absence of breath-sound than bronchial breathing. When I listened to this man's chest on the Sunday afternoon the serous effusion was so extensive—the stratum of fluid between the lung and the parietes of the chest so thick—that no breathing sound could penetrate it, and probably the lung was so pressed upon that very little air entered it at all, and so no breath-sound was produced, even if it could have been conducted to the surface. But by the Tuesday, two days later, so much of this fluid had been absorbed that the lung had regained a good deal of its lost volume, and was able to follow the respiratory movements of the thoracic parietes. Thus the respiratory tide was re-established in the bronchial tubes, while the stratum of fluid surrounding the lung was so thinned that it was able no longer to isolate the sounds within the lung, but conducted them with a peculiar modification to the chest-wall. Just the same explanation applies to the appearance of the *ægophony* three days after the man's admission. On the Sunday afternoon, with all the signs of abundant serous accumulation within the pleura, there was no *ægophony*; on the Tuesday, when the physical signs indicated a diminution of the effusion, *ægophony* was strongly developed. Hence we learn that the absence of *ægophony* does not show the absence of pleuritic effusion, but, on the contrary (if other signs exist) asserts it more strongly than its presence, and that the very excess of the condition to which the sign points extinguishes the sign. Thus, *ægophony*, in a case of hydrothorax, instead of being a bad sign, may be a good sign—a *redux* sign, pointing towards a restoration to a state of health; and there can be no doubt, in the case of this man, considering the physical signs he presented on the Sunday, that the appearance of the *ægophony* on the Monday, and its full development on the Tuesday, was the very best sign that could possibly have shown itself.

We learn too, I think, from this case, that there is a certain thickness of the stratum of fluid that

gives rise to a maximum development of the ægophonic twang. The sound was most strongly developed at a certain zone, above which it diminished and below which it diminished—above, as the stratum of fluid got thinner, fading into the natural voice-sound with a slight bronchophonic character; below, as the stratum of fluid got thicker, becoming fainter and more distant, but still retaining the ægophonic character. As the effused fluid has been gradually lessening in quantity this zone of maximum ægophony has gradually descended, because the point at which the stratum of fluid was of the exact thickness for its highest development has also gradually descended. What is the thickness of the layer of fluid that most powerfully generates this peculiar sound I cannot say, and to determine it would be a problem of very difficult solution.

From what I have just told you, we see that normal breath-sound obliterated by hydrothorax is restored *via* bronchial breathing, and that normal voice-sound obliterated by hydrothorax is restored *via* ægophony, just as normal breath-sound obliterated by hepatisation is restored *via* crepitation.

Again, we learn from this case, if we look at what I have called Stage 3, that the respiratory murmur may be resumed, and therefore the lung have acquired its normal volume and inflation, and therefore the fluid from that situation have disappeared, and yet ægophony remain. Now what does this seem to show? That the presence of fluid is not necessary to the development of ægophony. To-day, as I have read to you in the report of the case, there is very fair vesicular breathing over the middle two-thirds of the affected side; in some parts so clear and strong, and so evidently immediately beneath the stethoscope, that it is impossible to believe that there is any fluid there, and yet at this very spot—yes, and even above it—there is unmistakable ægophony. How is this to be explained? Thus, I think: The pleural surfaces are generally covered, to a thickness proportionate, I believe, to the length of time the effusion has existed, with a gelatinous leathery coating of fibrine. When the effusion subsides there still intervenes a double layer of this gelatinous material between the lung and the normal elements of the chest-wall; and as this material is saturated with fluid, it may, I think, be sufficient to generate the ægophonic tremor. This is merely an hypothesis; but I think it not an unreasonable one. The necessity of adopting it turns, of course, upon whether the presence of ordinary respiratory murmur negatives the possibility of there being fluid over the seat of it. If it does, as I cannot but believe that it must, then a layer of free liquid is not necessary to generate ægophony. If, on the other hand, ægophony inevitably implies the presence of a stratum of free liquid at the point where it is heard, then you may have respiratory murmur of natural character beneath pleuritic effusion. On the showing of this case, there is no escape from one or other of these alternatives.

You might have observed in this man that not only was there an absence of that fulness of the intercostal spaces which is generally described, and which often exists in cases of abundant pleuritic effusion, but that during forcible inspiratory efforts the lower intercostal spaces of the affected side were conspicuously more drawn in than on the sound side. This arose from the resistance which the fluid con-

tents of the diseased half of the chest offered to the sudden enlargement of its cavity. In healthy breathing the rising of the parietes in inspiration is immediately followed by, or rather simultaneously accompanied by, the easy and unresisting expansion of the lungs. But when the pleural cavity is occupied by fluid, this easy enlargement of the thoracic contents in obedience to the inspiratory movements is no longer possible, because, in proportion to the serous accumulation, in proportion as the lung has been supplanted by fluid, in such proportion has an expansible been substituted by an inexpandible material. The effused fluid is absolutely inexpandible; the compressed lung no doubt retains a considerable degree of expansibility, for unless it did no air-tide could be generated, and not even bronchial breathing would be audible; but the expansibility is always greatly inferior to that of healthy lung, and sometimes, when the compression has been considerable and of long duration, almost annihilated. Thus, partly by the diminished expansibility of the lung, and partly by the composite nature of the thoracic contents, a drag is put on the inspiratory movements, and the intercostal spaces are sucked in, so to speak, at each inspiration.

You must be prepared then to find that not only will there often be no filling out or bulging of the intercostal depressions in cases of hydrothorax, but that they will be more depressed and conspicuous at inspiration on the affected than on the healthy side; and that thus not an effaced condition but an excessive conspicuousness of these spaces may point to pleuritic effusion. This is a sign that is necessarily more marked in a diminishing than in an increasing hydrothorax, and therefore is not without prognostic import.

The whole bearing of this case favours most strongly Laennec's theory of ægophony. With the single hypothetical exception I have mentioned, the one thing that seemed to regulate it was the presence and quantity of the fluid; when the effusion was too great in quantity there was no ægophony, when it diminished the ægophony appeared, when it got down to a certain standard the ægophony was at its maximum, and as it subsided the ægophony descended. And even supposing, as I have suggested, that a gelatinous coating of fibrine may be adequate to the production of the ægophonic quake, it seems to me no violation of Laennec's view, for such a material is mainly fluid, and may be capable of experiencing vibrations similar to those of a fluid.

This case also clearly shows that the ægophonic twang is not generated at the *edge* of the effused fluid, as some have supposed, for it was the most marked a good two inches, I should say, below the level which the physical signs pointed to as that of the edge of the serum.

[To be concluded.]

MEDICATED CIGARETTES. *Mercurial Cigarettes.* Dissolve three drachms of red precipitate in three drachms of nitric acid, and add enough water to make up the quantity requisite to saturate 100 slips of paper. They will contain about three grains of the nitrate of mercury. *Nitre Cigarettes.* Dip the paper in a saturated solution of the nitrate of potash before rolling. *Balsamic Cigarettes* are made by giving the dried nitre cigarettes a coating of tincture of benzoin.

Original Communications.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON THE VARIOUS FORMS OF PARALYSIS.

By EDWARD MERYON, M.D., F.R.C.P.

[Continued from page 504 of last volume.]

PARALYSIS FROM EFFUSION AND COMPRESSION OF THE SPINAL CORD.

THE elaborate mechanism for the transmutation of the impressions of sense into springs of action, which the minute anatomy of the brain and spinal cord reveals to us, acquires a supplementary interest when we come to investigate it as the focus of morbid phenomena. We recognise its importance in the various degrees of arrest which are sometimes observed in its complete development; congenital defects which are seldom, if ever, compatible with the maintenance of life. We see it, too, in one of the earliest, as well as in one of the latest diseases to which human beings are subject; and in both cases paralysis is generally the result.

Hydrorachis, the consequence of a defective development of the vertebral arches, can appear as a congenital disease only; and although such arrest of genesis may not interfere with intrauterine life and growth, it is in almost all cases fatal shortly after birth. Whether associated with hydrocephalus or not, it generally occasions paraplegia, which extends to the sphincters of the rectum and bladder, producing incontinence of feces and urine.

This is not the place to dwell at length on the anatomy of tumours produced by hydrorachis, beyond the fact that they communicate with the cerebro-spinal fluid which is contained in the vertebral canal; that it is generally between the arachnoid and pia mater, which are not, in their healthy state, in such close apposition in the spine as they are within the skull; and that the paralyzing influence is occasioned by the pressure of the fluid on the spinal cord.

On these considerations, various expedients have been suggested for the treatment of spina bifida; and, in some few instances their practical application has had a successful result.

Desault recommended a seton to drain off the fluid; but, in every case thus treated, inflammation and constitutional irritation have terminated in death.

Abernethy suggested small and repeated punctures for the same purpose; and two successful cases are recorded by Sir Astley Cooper, together with a graceful homage to the author of the proposition. (*Medico-Chirurgical Transactions*, vol. ii, p. 322.)

In one of these cases, the risk of puncturing the tumour and setting up constitutional irritation was not incurred, but the disease was treated like a hernia, and the truss was kept applied to prevent the descent of the fluid. At two years of age, the child could walk alone, talked, eventually went to school, and ran, jumped, and played about like other children. He passed well through measles, small pox, and whooping-cough, and continued to wear the truss, by means of which the fluid was kept entirely within the channel of the spine, but the tumour very soon acquired the size of half a small orange, when the truss was removed. In the second case, Abernethy's suggestion was carried out; the inflammation which ensued produced adhesion of the sides of the sac, which closed the opening from the vertebral canal, and the disease was cured a little more than four months after the first puncture was made.

In neither was there paralysis; and Sir Astley Cooper considered that complication as a reason for not attempting either method of treatment; but Rosetti has reported a case complicated with paraplegia, which was cured, and the motion of the legs restored, by repeated punctures and compression. The palsied state of the sphincter muscles, however, adds immeasurably to the danger and difficulty; for, of all things it is most important to keep the tumour clean and dry, seeing that under the most favourable circumstances the tense skin is apt to become inflamed.

The treatment of spina bifida by iodine injections has lately been proposed to the profession; first by Velpeau, and in 1858, M. Debout, in a treatise on the *Therapeutics of Spina Bifida*, gave the details of several cases in which iodine injections have been successfully used. In the following year, Dr. Brainard, of Chicago, recorded the particulars of ten cases, treated by himself and other surgeons, of which four were successful. Again, in 1860, Dr. Gross, of Philadelphia, reported two cases in the *North American Medico-Chirurgical Review*, one of which terminated successfully. In each case Dr. Gross punctured the tumour about an inch and a quarter from its base, by means of a small flat curved needle which he directed subcutaneously into the sac. Then, through a small cannula he allowed the escape of a drachm of fluid, and injected a solution of one eighth of a grain of iodine, and a quarter of a grain of iodide of potassium. He then closed the puncture by a twisted suture, and coated it over with collodion. Three drops of laudanum were given, and the child was directed to be kept lying on its face. Dr. Gross does not write encouragingly on the operation; still it must be admitted that the general results are favourable. In operating, the puncture should be very small, and the injection very weak at first, the object being to excite a slow process of inflammation in the cyst. It must be confessed, however, that if the life of the child be saved, paraplegia is apt to remain, together with involuntary defecation and micturition.

LESIONS OF SENSATION AND MOTION FROM CONGESTION OF THE SPINAL CORD.

Spinal congestion is in almost all cases, a result of some specific form of disease; but, as Rokitsky has observed, it also comes on idiopathically. "It then usually pervades the whole cord and its membranes, as well as the brain, and is most frequently met with in early childhood." (*Pathological Anatomy*. Translated by Moore, vol. iii, p. 448.)

In old people, the veins of the spinal cord which accompany the anterior and posterior spinal arteries, are often found dilated and distended with blood. This, in many instances, may be mere hypostatic engorgement; but cases also occur in which premonitory symptoms lead on to lesions of sensation and motion, which can only be attributed to a congested state of the spinal vessels, and perhaps to effusion into the vertebral canal.

CASE. A gentleman, aged 76 years, consulted me in May 1849, in consequence of a sense of heaviness and great weakness of the lower extremities, by which he had been inconvenienced for nearly six years, and for which he had taken a brisk purgative every second or third week, with considerable relief. For a month or more, however, the left foot and leg had become somewhat numb and slightly cedematous, and he also experienced so much difficulty and pain in raising and rotating the thigh outward, that he had a room on the ground floor converted into a bedroom. A series of blisters, one every fourth day, over the sacrum and loins, restored very much power to the lower extremities, and enabled him to use the psoas and iliacus muscles without pain. He had, moreover, a respite from any aggravation of the

symptoms for some three or four months; still they re-occurred, but were always more or less relieved by counter-irritants and purgatives until he died of bronchitis, in 1860.*

M. Ollivier relates the case of a locksmith, aged 20, who, during convalescence from gastric fever, was suddenly seized with paraplegia of the lower extremities. A tingling and pricking sensation extended over the skin from the feet to the epigastrium; and an acute pain extended from the bottom of the back to the sixth dorsal vertebra. On the fourth day, a sloughing sore appeared on the sacrum, and the pain extended to the neck and arms, which were numb and weak. The treatment consisted in the application of blisters; by degrees, the extremities regained their healthy sensation and motion, and in less than a month the patient was discharged cured.

It is perhaps impossible to determine the precise condition of the spinal cord and its vessels which may have occasioned the peculiar symptoms in the two preceding cases. Simple congestion of valveless veins at once suggests itself as a cause of the upward course of the morbid action which was manifested in both; but it is improbable that such a state would yield so readily to the influence of a counterirritant, although it certainly does sometimes happen that the progress of an internal disease is arrested by a cutaneous eruption, and the veins of the spine communicate with the superficial veins, either directly or indirectly throughout the whole extent of the vertebral column. Still, the venous sinuses and the veins which accompany the anterior and posterior spinal arteries diminish considerably in the sacral region; and it is scarcely probable that the functional lesion from congestion would first manifest itself where the veins are smallest.

If, however, the symptoms be attributed to effusion of serum, they admit of a satisfactory interpretation, by the fact that the lowest part of the spinal canal is that to which the fluid naturally gravitates; and there the pia mater, the medium of nutrition to the nervous matter of the cord, would be first exposed to injurious pressure.

Irrespectively, however, of pressure from effusion, there is one circumstance connected with the peculiar mechanism of the vertebral column which is worthy of consideration in cases of spinal congestion, and it is this: that the spinal cord more completely fills the vertebral canal in the dorsal region than it does either above or below, and that, therefore, symptoms of compression of the dorsal portion of the cord may present themselves at a very early stage of the disease; but as this fact is, if possible, of still greater importance in relation to myelitis, I will again refer to it.

We may be too ready to attribute morbid phenomena of the nervous system to the influence of pressure from effusion, seeing that in the healthy condition the cerebro-spinal fluid serves as a support and protection to the spinal cord and nerves. In old age, too, there is a disposition in the cord to shrink, and the transudation of serum proceeds *pari passu* with the diminishing bulk of the organ. So far, therefore, it is a conservative action; but the increased mass of fluid must necessarily produce a sensible effect on the pia mater which surrounds a diminished cord; and it is just in this state of things that we are most likely to obtain relief by the local evacuating influence of blisters.†

* One marked symptom of which the subject of the above case invariably complained, was the great difficulty he experienced in walking on first rising after a night's rest; and this is generally a feature of spinal congestion.

† In the treatment of spinal congestion, the ergot of rye has obtained great celebrity within the last few years, in consequence of the property which it appears to possess of acting on the vaso-motor nerves, and thereby diminishing the supply of blood to the spinal cord. To this, also, I shall revert in reference to the treatment of myelitis.

PARALYSIS FROM MENINGITIS OF THE CORD.

In meningitis of the spinal cord paralysis does not occur, except from pressure produced by exudation of fluid, or by the extension of inflammation and disorganization of the cord itself.

M. Ollivier has given an interesting case of spontaneous spinal meningitis, in which the symptoms accorded very entirely with the structural lesions. (*Traité de la Moelle Epinière*, tome ii, p. 551, 2me edition.) The patient, a man, aged 24, was admitted into the Hôtel Dieu with obscure symptoms. On the fifth day of the disease, he had paraplegia, with hyperæsthesia of the lower extremities. Three days afterwards, the arms became partially paralysed, semiflexed, and stiff; the right pupil was more dilated than the left; the association of ideas was slow. Two days subsequently, he died. The cellular tissue which surrounds the dura mater of the spinal canal was filled with vessels injected with blood. The spinal cord was enveloped in a layer of gelatinous yellow matter, between the arachnoid and pia mater. It was most abundant over the lumbar enlargement, and extended as high as the third cervical vertebra. It was thickest where it covered the posterior columns of the cord.

In more tractable cases, after the intensity of the inflammation is subdued by blood-letting and other means calculated to overcome excited action, the paralytic effusion may be drained off by the derivative effect of blisters.

Internal remedies, however, are not to be disregarded; and of these none promise to be more effective than the secale cornutum and the iodide of potassium. The external application of belladonna and chloroform will be found of great service in diminishing the violent pain which accompanies meningitis of the cord. Dr. Ramskill has reported two interesting cases of spinal meningitis, in one of which, paraplegia supervened from rapid effusion of spinal fluid. In both, the iodide of potassium was used, and apparently with good effect; but in the case which manifested no complication of spinal effusion, the ergot of rye was employed in combination with the iodide of potassium. (*Medical Times and Gazette*, August 31st, 1861.)

Paralysis may result from pressure occasioned by the deposit of cartilaginous or calcareous matter, from consecutive portions of fluid poured out during several mild attacks of spinal meningitis. M. Barbier has recorded a case of paraplegia from such cause. According to Rokitsky (*Manual of Pathological Anatomy*, vol. iii, p. 440), this deposit is frequently found in the form of scales or laminae on the inner or visceral surface of the arachnoid, giving rise to what is called ossification of the spinal arachnoid. It seldom happens, however, that the cord is actually compressed by this bony matter; consequently, irritation and affections of a convulsive character are the ordinary forms in which these adventitious growths manifest themselves.

[To be continued.]

HOSPITAL IN CONSTANTINOPLE. Letters from Constantinople speak of the great success of the hospital of Faidar Pacha, established there on the French system, and managed by French and Italian professors. The Sultan having recently visited the institution quite unexpectedly, was so delighted with it that he sent for Marco Pacha, Faik Pacha, and Della Suda (an Italian), and, having congratulated them on their management, requested to know what he could do in aid of the hospital. In consequence of their representations, the Sultan has granted a large piece of ground for the erection of a museum and botanical garden, the plants for which are already supplied by the Museum of Natural History in Paris.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

ON THE RECENT OCCURRENCE OF TYPHUS FEVER IN BRISTOL.

By SAMUEL MARTYN, M.D., Senior Physician to the Bristol General Hospital.

[Read April 30th, 1863.]

DURING the past six months, several cases of typhus fever have come under my notice in Bristol or its suburbs. It is perhaps unnecessary to say that I mean *typhus proper*, the distinctive character of which, and its non-identity with "gastric", "typhoid", "enteric", "intestinal", or "pythogenic", etc., may, I suppose, be considered as set at rest. Several years having elapsed since any case has been under my care which I felt justified in registering as "typhus", I regarded these few cases with peculiar interest, and have made various inquiries with a view to discover whether they represented a part of an epidemic. For last year there was a considerable amount of typhus in England, as in the autumnal outbreak at Preston; and, further, in London there really occurred an epidemic very far exceeding any which has been witnessed during at least fifteen years, the admissions from typhus at the London Fever Hospital reaching the number 2,699, or 1,000 more than in any year on the records. But the number of typhus cases of late years has been extremely small; and this applies to most if not all cities in Great Britain. Dr. Gairdner, lecturing in the Edinburgh Infirmary last year, says: "Typhus fever seems to have vanished from the list of our epidemics for the present"; while at the time he could find but one case to show to the students, some of whom "had never seen the eruption before". In Bristol the same thing has been observed; and those engaged in hospital, dispensary, or union practice have not of late seen many cases of true typhus. Those who remember the years 1826 to 1829 at the Bristol Workhouse tell me that the presence of typhus was the rule; that it raged with a severity comparable to that observed in Ireland, often assuming characters like those of "plague"; and that most nurses and pupils exposed to it suffered at least one attack. There was, and is still, a notion that the cholera epidemic of 1832 was the turning-point; and that typhus fever from that time became rapidly rarer, being replaced by the previously little known and understood typhoid. However that may be, the London outbreak of last year showed that the giant was not dead; and the occurrence of even a few cases in Bristol seemed to deserve inquiry, as they might be the indices or the harbingers of a wide-spread epidemic.

To obtain some idea as to the fatal results of typhus in Bristol last year, I examined the registers of the city and its suburbs. The result of this examination was gratifying enough in one way; for, out of about one hundred deaths which occurred, from some kind of continued fever, from March 25th, 1862, to March 25th, 1863, in the various parishes, only sixteen were registered "typhus", while thirty-eight appeared as "typhoid" or "gastric"; the remainder being simply mentioned as "fever", or with some prefix indicating its general nature. These figures set aside the idea of a true prevalence of typhus; but I was very much impressed with the great loss sustained by the public from the extremely loose way in which the death-causes are commonly certified. I know that the *Instructions to Registrars* group together all fevers under one head; and, for practical purposes, it seems as well that a layman should, in commenting on an unusual mortality, simply return "fever"; but it seems strange, in the present advanced state of diagnosis, that so large a proportion of deaths

should be registered as "fever" merely, or with additions which do not assist, as, e.g., "febris pulmonalis", and the like! I next inquired into the particulars of each or nearly each of the cases marked "typhus", and found reason to believe that about half were cases of veritable typhus, and not merely obscure cases of typhoid or other diseases.

My inquiries of gentlemen connected with the public institutions elicited the general impression that for years no cases of *typhus* have been seen, and last year a few only. Thus Mr. Henry Grace reports a violent outbreak of typhoid last summer, but no case of typhus, in the Bristol Workhouse. It was interesting to know that, amongst these typhoid cases, in one ward nearly all the women were simultaneously attacked, of whom five were giving suck; and that the children being removed and weaned, not one of them was affected with fever. At the Bristol Dispensary, Mr. Norton has not seen more than one case of true typhus for many years; and then it was an Irish patient, who came, already infected, from Liverpool. Several cases have, however, been mentioned to me as occurring during the last six months—five or six in the practice of the Infirmary, two in- and several out-patients at the General Hospital, and one case (Mr. H. Wilson's) in the Dispensary. It would be extremely interesting to trace the history of each case; but this I have only been able to do for those which chanced to come under my care, or which belonged to a certain local outbreak, and the only one, as far as I have made out of any extent, in the practice of Mr. Davies of Queen Square. Mr. Davies recognised the fever at once, although, as he told me, it was fourteen years since he had seen similar cases.

CASE I, under my own care, was the wife of a Great Western Railway policeman, a tolerably healthy woman, 22 years of age, who was admitted into the General Hospital on November 1st, 1862. Her case was typical typhus. The elaborate record of it by my clinical clerk, Mr. James, occupies fourteen closely written pages of large quarto; my reason for mentioning which will presently appear. The disease commenced with shivering and confused intellect. On the fourth day, she was covered with typhus rash. On the sixth day, she had typhomania, with a feeble pulse of 129, dry tongue, and bleeding lips. On the ninth day, the pulse was 150, and the delirium muttering. On the twelfth, she answered questions, but incoherently; pulse 130; conjunctiva injected; and she had very little sleep. On the twenty-first day, pulse 117; tongue red; legs oedematous; urine albuminous. On December 18th, she was quite well.

This case was treated simply according to the predominant apparent mischief. When low, she took for many days the *mistura vini gallici*. The bowels required sometimes an astringent, sometimes a purge; and beef-tea with milk were the chief articles of diet. I remarked that she was much worse on taking some meat, when convalescence approached, but when the elimination of urea still remained deficient. A slight relapse of head-symptoms was instantly relieved by two leeches to the temples.

This poor woman's case was the only one in a healthy neighbourhood; and at first I supposed it might have been sporadic. I find, however, that fever of some kind or other was present in the same small street; and also that her husband had been not long before on an excursion to London, where he remained several nights. My next case seemed equally isolated; but inquiry showed that there was positive evidence of direct contagion.

CASE II. On November 3rd, 1862, I was called to see a lady living at Kingsdown, in a very high, airy locality, and a perfectly healthy house. She was unmarried, robust, of sanguine and nervous temperament, and 35 years of age. She had been feeling low, nervous, and cold, but alternately excited or flushed, for a week; consequently she had taken aperients, and been two days in

bed. Her tongue was moist and large; pulse 80; her manner excited (looking like hysteria); she talked fast, with a surprised expression of face, and eyes observantly and defiantly open. There was no pain; no spots nor other symptoms. The first sign of illness noticed by her family had been an over-excited mannerism at the pianoforte, with confusion and flushing. Although I was assured she had not been exposed to contagion, I ventured a diagnosis of "fever"; in truth, rather glad to escape remarking what the state was quite as much like—namely, acute mania.

On Nov. 6th, the front of the trunk was covered with dusky red and purplish spots. She was now quite maniacal at night, quiet in the morning. Pulse 100 during the paroxysms of mania, when five persons could but just keep her on the bed; but 80 during the remissions. The bowels were obstinately confined. There had come out now that she returned about ten days ago from staying with a family near Bath, of which one of the young gentlemen had just returned from Manchester convalescent from fever affecting his head.

Nov. 13th (fourteenth day of fever). There was fully developed "delirium ferox". Pulse as before. She took beef-tea and milk. Alcohol increased the excitement frightfully, and opium had no effect. Some sleep at night appeared to be obtained by half a grain of antimony and tincture of hyoscyamus in drachm doses every two hours. Ice on the shaved scalp cooled the head apparently too much.

Nov. 19th (twenty-first day). There was no return of reason, no improvement. From this time the struggles and talking became feebler. There was great emaciation. Bed-sores and black tongue followed. Hemiplegia came on; and she died on the twenty-seventh or twenty-eighth day of the illness, violent delirium having persisted for eighteen days. No one took fever.

CASE III is that of a respectable though poorly nourished shopkeeper, living in an airy house at Clifton. On new-year's eve he returned home, past midnight, through the long suburb of Bedminster. I saw him first on the 4th of January. He was attacked with intense vomiting within a few days; his limbs were covered with typhus rash. His case was one of great interest from an independent point of view, as it assumed a true relapsing character, weekly or fortnightly; ending, as relapsing fever so often did, by a critical sweating, followed by frantic delirium, extreme prostration, and death (on March 2nd), preceded by gangrene of the lungs.

CASE IV was that of a poor boy brought as an out-patient to the hospital, and whom I lost sight of when he was too ill to be carried up. He had wandered much about the courts and alleys of Bedminster.

CASE V. Mr. James. On February 2nd, 1863, I was asked by Mr. Davies in Queen Square to see his apprentice, who was at the same time my clinical clerk at the hospital. He had been poorly for a week, but well enough to visit some private patients for Mr. Davies, and to attend in my out-patients' room three days before. He was then, however, so much out of order that I sent him home to keep quiet. He traced his attack to a visit paid to a family in which three members had true typhus. He lay, with a very heavy and dull expression, flat on his back, but had no pain. The surface was hot; the tongue covered with thick fur; the conjunctivæ rather pink; the arms and trunk were covered with typhus rash (not confluent, nor disappearing on pressure); pulse 120. He took nothing but milk and water.

Feb. 11th. From day to day he had presented a slow but steady amendment. No diarrhoea. The pulse came down a few beats daily.

His treatment consisted of rest, ventilation, a saline, two aperient doses, with milk, oranges *ad libitum*, and beef-tea.

Feb. 13th. He was sitting up, convalescent.

Mr. James, it will be remembered, had two months

before spent many hours by the bedside of Case I without taking the fever. Now, however, by visiting patients in their own badly ventilated houses, he received the poison in a form concentrated enough to inoculate him. The attack belongs to those of so mild a character as to have suggested to Dr. Gairdner the possibility of a true change of type. Mr. Davies's house is admirably ventilated, and no one in the family suffered.

I now come to the cases from which Mr. James caught fever, the notes of which I owe to him and to Mr. Davies. These cases were situated in the crowded locality of Water Street and Leek Lane; most of the houses being ill drained, very badly ventilated, and thickly populated. The sequence I have made out to be as follows.

CASE VI. F. R. (Kington Court), a boy of 15, rather weak in body and mind, took it into his head to walk about the country and get a living. He thus wandered to London, Edinburgh, and other places. On his return, in August 1862, he became ill with a continued fever, for which he was ultimately placed in the infirmary. Head-symptoms predominated, and his case was pronounced to be typhus. In five weeks he had recovered.

CASE VII. T. R., aged 43, a flyman, father of the last mentioned case, was next taken ill. Mr. Davies informs me that this was undoubted typhus, though neither in this nor several of the cases was there a well marked rash. There was much and early delirium and deafness, but without abdominal symptoms or diarrhoea. He recovered in five weeks.

CASE VIII. His wife; ill three weeks with an attack in all respects similar.

CASES IX, X, XI, and XII. Four of their children; all ill successively for a week or two each. All recovered.

CASES XIII, XIV, XV. Three children next door to the last mentioned family. Ill in September, from two to four weeks each; all had brain fever.

CASE XVI. G. D., aged 38, residing at 18, Water Street, turner, a strong healthy man; had had no previous disease, except a slight attack of rheumatism two or three years ago. His residence was unhealthy. There was no history of contagion. He attributed his illness to getting wet through on the day of the celebration of Prince of Wales's coming of age, and going to bed with wet clothes on. He had headache, cold, etc., up to Nov. 29th, when he had rigors, and was obliged to leave off work. He was seen by a medical man on Dec. 1st, when the symptoms were headache, loss of appetite, cough, white tongue, and pyrexia. In a few days, the headache became intense on the right side in front; and he complained of something coming over his eyes, so that he could not see. He had a feeling of sickness, but no vomiting; great prostration; dusky countenance; and he was very stupid. There was no pain in the belly nor tenderness. No spots appeared on the skin. The tongue was dry, fissured, and black. Black sordes appeared on the teeth. The conjunctivæ were injected. Delirium prevailed from December 7th up to his death; requiring three or four persons to hold him. His bowels were costive all through the illness. He was partly unconscious; not noticing his wife from the 7th up to the morning of the 11th, at 8 A.M., when he became conscious for about an hour, and then fell back to his former state, and died at 3.30 P.M. He had vomited everything for two days previously to death. He had had no motion since the 7th, and had suppression of urine also from that day up to just before his death, when he passed urine. His treatment consisted of salines, beef-tea, and wine, etc.

CASE XVII. C. D., aged 37, wife of the preceding patient, also in good health, was taken ill with giddiness. She was seen by a medical man on January 1st, 1863, when she presented the following symptoms: dusky countenance, tender belly, costive bowels, pyrexia, and quick pulse. She was in bed for about nine weeks, during which period she had no spots on the skin, ex-

cept miliary vesicles. Headache was very great; and there was delirium. She had hemiplegia of the left side, motion only being lost; sensation not being much if at all impaired. The pulse was very quick; the tongue dry, black, and chapped. She had sordes on the teeth. The hemiplegia gradually passed off.

CASES XVIII, XIX, XX. The three children of the last case; all had continued fever in January; all had the intense head symptoms and constipation.

From these last-named five cases in one family, none of whom had well marked eruptions, there were derived other cases, one of which was that of my clinical clerk; and in the derived cases the typhus-rash was well developed.

CASE XXI. A. J., 2, Water Street, aged 43; assisted to lay out the body of the man in Case XVI. He was seized with fever of the most marked typhus kind, with severe delirium, and spots over the whole body. He died on the eleventh day of the fever.

CASE XXII. W. S., a fellow-workman of Case XVI, who came to see him. A case like the last. Died on the tenth day.

CASE XXIII. Another man; sat up one night with Case XVI, and, though living at a distance, sickened two days afterwards, and had severe typhus, with delirium, severe rash, and constipation. (Case of Mr. H. Wilson.)

CASES XXIV and XXV. Mrs. G. and her child, both living in Water Street. The mother recovered in two months; the infant died in ten days.

CASE XXVI. H. W., aged 38, Penn Street (next to Water Street); taken ill Jan. 26 (reported to me by Mr. Davies). Intense stupor, thickly-coated tongue, universal typhus spots, and obstinate constipation. He recovered in three weeks.

CASES XXVII and XXVIII. In the same house; suffered from similar fever in slighter degree.

I have memoranda of several cases reported to have happened in the practice of my colleagues at the General Hospital; but not particulars enough to enable me to trace any previous history; consequently I omit all further notice of them.

I have now, including all the cases to which I have alluded, brought out the existence of at least thirty-five instances of veritable typhus fever in Bristol during the months of November and December 1862 and January 1863. Of all these, six died; and of the remainder the result of three is unknown to me.

As to the treatment, the general impression left by the several histories, whether of my own or the other cases, is something like this. Those remedies did most good which relieved the head; and in severe instances the cerebral symptoms were paramount. Thus, a raised position, shaving the head, leeches on the temples, cold to the scalp, purgatives, warmth to the extremities—all did good. The worst cases were not those in which the ventilation was worst, nor in weakly, ill-nourished persons; but in those who either bred or caught a powerful amount of the poison. No doubt, however, ventilation assists the treatment. Quinine apparently distressed the cerebral circulation. Opium sometimes aided sleep, but rarely. Stimulants could by no means be used indiscriminately. Where the fever was very protracted and low, they did most good and least harm. Thus, my Case I took brandy with great benefit every few hours for a week, commencing on the tenth day. Stomach digestion seemed to occasion cerebral disturbance; so that a return to solid azotised food, if not very cautiously managed, caused relapses. Antimony was useful. It seemed to me that the so-called "antiphlogistic" plan was the best suited to most of the cases; of course pursued in the gentlest way. May not this arise from head-symptoms constituting the predominant source of danger? May not this view explain, in many cases, the change in our modes of treatment?

Lastly, as to the origin of these twenty-eight cases,

there is not one which was not either in immediate contact with a case of fever, or in proximity to fever cases, or whose immediate relatives has not been so exposed. I think these cases are valuable in this point of view, because they look so very isolated, and, without careful inquiry, must be set down as triumphant instances of spontaneous generation. But that theory here, at least, is inapplicable.

In a disease which (unlike typhoid) is so intensely contagious—for Case VI originated probably twenty-one other cases—it seems to me that the onus of proof of spontaneous generation rests with those who choose to advance that theory. But in the way of this proof there seem to be, amongst others, these insurmountable difficulties; firstly, that an incubation period of some weeks is conceded; and secondly, that typhus fever of the most virulent kind may be disseminated by persons not *obviously* suffering from it—as in the case of the Egyptian frigate at Liverpool. I believe the solution of this problem will be found rather in some kind of metamorphosis than in the spontaneous production of a new *materies morbi*.

READING BRANCH.

PRESIDENT'S ADDRESS.

By GEORGE POUND, Esq., Odiham.

[Delivered July 1st, 1863.]

GENTLEMEN,—The year which terminates with us on this day—the seventh of our existence as a Branch of the British Medical Association—invites us to look back and review whatever of social and political importance has occurred during its progress.

There are matters of interest to us as a Branch; perhaps not so many—certainly many—interesting to us as members of a large and increasingly important society; and a great many (of which time will only allow me briefly to notice a few) which are especially of moment to us as members of the body medical.

On such an occasion as this, the general welfare, the present position and influence, as well as the future prospects of our Association, as a matter of course, occupy our more immediate thoughts. For thirty-one years now has this society existed amongst us. As year after year has passed by, its founder and his early friends more especially have watched its upward progress with an anxiety and pleasure known only to those who originate and develop a great undertaking. Its gradually increasing extent and influence, made apparent in the number and strength of its Branches, testify to the wisdom which laid its foundations, and to the bond of union it affords to members of the profession scattered throughout the length and breadth of the empire. Originating in the provinces, it has made its title good to the name it now bears of "British", by having held its last annual meeting in the British metropolis, and within the time-honoured walls of the Royal College of Physicians. Time would fail me if I were even to attempt to dilate on the splendour of the reception awarded to what was once a small Provincial Association. One seems to hear one's brother of the town say to him of the country: "For thirty years you have invited us to share *your* hospitality. You have provided for us bountifully; you have spread intellectual treats for us; and you have worked well to maintain dignity and learning amongst yourselves and to diffuse it amongst your fellows. You have altogether worked in the right way. We sympathise with you heartily in your efforts: now let us repay the compliment—come and see us; let us unite hand in hand in a good cause." And, gentlemen, those of us who were happy enough to be able to accept the invitation, can bear testimony with me alike to the cordiality and friendship of the reception, as

well as to the rich treasures of wisdom and science which were brought together for our intellectual gratification. I will venture to say that the generous hospitality of our metropolitan brethren will be long remembered by us. Not the least among the many circumstances which afforded us pride and pleasure on that occasion was this: that so many eminent members of the profession embraced the opportunity of identifying themselves with the objects and interests of the Association by becoming members of it. You all know that I refer, amongst others, to the names of Watson, Mayo, Billing, Lawrence, and also to Sir B. Brodie; and it is a source of peculiar gratification to us, I conceive, that at the close of a long and successful life, in the perfect ripeness of mature judgment, the latter eminent surgeon should thus have recognised the merits and usefulness of this Association—too soon to be cut off from amongst us, yet full of years as of honours. Let us pay a tribute of respect to his memory!

One movement made at this meeting, as it is a new one, and promises to be of practical advantage, may fairly claim a passing notice; and that is, the appointment of a Committee to inquire into and report upon the action of drugs. I hope all the members of this Branch, who have the opportunity, will aid the Committee in this important undertaking by at least filling up and returning the printed forms with which they have been supplied through the medium of the JOURNAL.

Referring to the JOURNAL of March 7th, I find that, up to that date, 176 new members had joined the Association, in addition to 66 who joined at or about the time of the annual meeting. Now, although this, added to the strength of the Association as it existed before, appears a very large number, and is indeed sufficient to make our body of some importance, still it does not amount nearly to the proportion, as compared with the numerical strength of the profession, to which its more ardent friends looked and hoped, nay expected, it would attain. It is difficult to conceive why so many hold back, why so few comparatively can see the advantages to be derived from forming a society amongst ourselves, as members of every branch of the profession, independent of its colleges, licensing bodies, and corporations. We are asked: "To what good result do your meetings lead? and what can you return us for our subscription?" Of course, you and I are persuaded of the good objects and aims of our Association; and I will venture to say that we are to a very great extent satisfied with what it has done; and we feel that we only require a greater numerical strength to give us a more influential voice in all matters, whether legislative or otherwise. Still, if any other and more tangible and more superficially apparent good could be presented to the body and bulk of the profession, I do not think it would be altogether without result; and for that reason I am glad to see that the subject of health assurance has been proposed and partly discussed in connexion with this society. I am inclined to think that, if it can be made to work practically, it might cause a large accession to our ranks; and it appears to me that the organisation which at present exists amongst us, in Branches and local secretaries, affords a machinery by which the movement might be carried out in the first instance. I think, therefore, that this is, at all events, a legitimate matter for discussion; and if, by and by, any member happen to have thought it over and possess any facts or data bearing on the question, that he will be doing good service by bringing it forward.

Referring to the financial report published in the JOURNAL of March 28th, I have no time to do more than simply congratulate the society on its freedom from debt, with a small balance in the hands of the Treasurer; and also on the probability of a small surplus remaining over and above the expenses of the current year.

With regard to our own Branch, I am not aware of

any great change having taken place either in our numbers or in any other particular. We are a comparatively small Branch, and scattered over a wide district; but, when the occasion has arrived, the members have always gathered together, some from a considerable distance, as on a recent occasion, for the purpose of recording their opinions, and have been amongst the first to unanimously express their strong and unqualified protest against some of the crying evils of the day as they affect us as a profession.

Passing now to more general matters: When are we to have a new *Pharmacopœia*—that long expected progeny of our "little Bills", whose own birth, difficult and protracted, was so eloquently, and with something of poetic imagery, depicted in this room some four years ago? With what pleasure did we hail the advent of that remarkable offspring! "Baby was not vigorous in mind or body. Beautiful exceedingly, no doubt; and so intelligent; but not *vigorous*; immature; pulpy; helpless, except through its very weakness"; and withal expensive! Nevertheless, we have watched his growth with fond hope and anticipation; and we have looked with keen anxiety that he should bring forth some fruit, give some return for the money and care so freely and ungrudgingly expended in his rearing. But as yet "Bill" is found wanting, and shows little or no sign of potency. We will yet hope, however, that the day will come when we may at last be able to speak of him with paternal pride; that he will yet flourish, to be at once our support and protection.

The past year has witnessed some very important trials in courts of law, in which our profession has taken a conspicuous part, sometimes in the position of defendant, sometimes as plaintiff, and more frequently in the witness-box. This Branch having very recently held a special meeting for the purpose of considering the question of medical evidence in courts of law, and having come to an unanimous decision by a resolution which has been published in the JOURNAL, renders it unnecessary for me to say as much on the subject as I should otherwise have done; but I think I shall not be stepping out of my proper sphere if I briefly remark on one or two trials to which no reference was either made or called for on the occasion to which I have just referred. These cases seem to bring before us with stern reality the responsibilities which beset our every day life; and they teach us how necessary it is for us to walk "circumspectly". Of the most remarkable really, in a certain point of view, was one which took place in a coroner's court, and arose out of the circumstance (one would have thought natural enough, after the details given in evidence) that the medical man concerned—Mr. Buss—required a written promise of payment before visiting a child represented to have become suddenly worse from the effects of an accident. The child having died, as was shown at the inquest, from effusion on the brain, it was sought to be shown also that the delay occasioned by the surgeon's first inquiry as to his remuneration was the immediate cause of the child's death. The conduct of the medical practitioner was denounced by one of the jurors as "mercenary"; and a special verdict, animadversive of the practice (if it be a practice), was entered. Comment is almost unnecessary. The *Social Science Review* says on the subject: "Nothing, in our opinion, could be fairer than the transaction; and the juror who called it 'mercenary' did not know the meaning of the term. If Mr. Clarke, the father of the child, in lieu of wanting a doctor, had wanted five shillings (the amount of the fee claimed) to obtain for his child some necessary that would have helped, as he thought, to save his life; and if, at half-past three in the morning, he had gone to that said juror as a perfect stranger, and had asked the juror to give him five shillings for the purpose named; and if the juror had said, 'Certainly, but you must give me a line of

acknowledgment that you owe me so much',—that juror, in his own mind, would have thought himself a very generous individual, and the world would have thought him so too. But then, Mr. Buss was a doctor; and, instead of supplying hard cash or some other substantial thing, had to supply thought, action, time—unsubstantials, which cannot be calculated in regard to value, and therefore are considered as something essentially different from these commodities, the market value of which may be cast up on the fingers."

Another extraordinary verdict was that found against Dr. Philbrick. The particulars of the case I assume you are acquainted with; they are to be found in the *Lancet* of Dec. 20th last. The verdict was: "That it is the opinion of the jury that there was not that attention paid to the deceased on the part of Dr. Philbrick which the case required; and that he was mistaken as to its being a foot-presentation." This verdict was certainly an unjust one; but it was scarcely the worst part of the trial, after all, which consisted in the circumstance that in this case, as in so many others (I need not now more particularly refer to *Bromwich v. Waters*), medical men were found ready to step into the witness-box and give evidence against their brother practitioner. By referring to the *JOURNAL* of Dec. 13th, you will find an analysis of a portion of the medical evidence; and it would be difficult to find a more glaring example of dogmatic assertion than is contained in the evidence of one of the witnesses, who gave it as his opinion that the hæmorrhage from which the woman suffered predisposed her to the attack of apoplexy of which she died! Whether Dr. Philbrick was right, in the first instance, in considering the case one of foot-presentation, is beside the question; and it is also doubtful whether or not he (Dr. Philbrick) had fairly taken upon himself the responsibility of the case.

The ignorance of juries, and their inefficiency to decide on questions of a scientific nature, has been long felt and acknowledged; and it is not too much to say that a professional man placed in any degree on his defence will scarcely receive that justice and that intelligent consideration at their hands, to which, of course, he is entitled.

"Twelve men, utterly ignorant of the first principles of physiology, and more than ignorant because filled with most erroneous notions on the subject, are set to determine whether a man who has studied the science for a life-time has rightly or wrongly applied it. True, they are supposed to be informed as to this by experts; but, in practice, the experts on either side flatly contradict each other, and the ignorant jury must judge between them. This is a mockery of justice, discreditable alike to science as to law, and should be prevented, as it may be, by simply permitting the *fact of admission* to the profession to be conclusive evidence of *competency* in a medical man, limiting his *liability for misconduct to negligence* in the exercise of his skill, to be sustained by proof of *actual misconduct* or *positive neglect*." (*Law Times*.)

The ignorance and incompetence of juries has always been the subject of satire and joke. It was, perhaps, never shown up to greater ridicule than by an eccentric member of our own profession, one Andrew Borde, who is said to have acted as physician in the service of King Henry the Eighth. You will find in Mr. Jeaffreson's *Book about Doctors* the following anecdote related of him.

"Acting as foreman of a jury in a small borough-town, a prisoner was charged with stealing a pair of leather breeches; but though appearances were strongly against the accused (who was a notorious rogue), the evidence was so defective that to return a verdict of guilty on the charge was beyond the logic and conscience of the twelve good men and true. No course seemed open to them but to acquit the knave; when Andrew

Borde prevailed on them, as the evidence of stealing the leather breeches was so defective, to bring him in guilty of *manslaughter*. It is needless to say that the jurymen took Andrew's advice, and, finding a verdict to the best of those abilities with which it had pleased God to bless them, astonished the judge and the public not less than the prisoner with the strange conclusion at which they had arrived."

The lapse of three centuries or thereabouts does not appear to have afforded juries sufficient time to improve. As it was in the days of the Henry the Eighth, so it is, or something like it, in these days of Queen Victoria; for I read in a paper the other day of an inquest held in the North of England upon a convict. The prisoner had been sentenced to three years penal servitude. Being of a lazy disposition, he soon began to affect illness with a view of escaping work; and on one fine morning was found dead in his cell, having just hanged himself behind the door. The facts disclosed led the jury to return the following verdict:—"Hanged himself, probably with the intention of being found by the warders and obtaining relief from work and discipline."

We are all of us called on, perhaps often, certainly occasionally, to fill in forms for the admission of patients into lunatic asylums. The case of *Hall v. Semple* will teach us a lesson to exercise due care and precaution; for they are important documents, and we cannot all of us afford to buy experience at so heavy a cost as Dr. Semple would have had to have done personally, had not the profession come forward and given him a helping hand in his dilemma.

It is a source of great regret that I am unable to congratulate the profession that the cause of Poor-law Medical Reform has not made much apparent progress since we last met; but we must still encourage one another, weary and faint by the way though we may be, to persevere in our efforts; for I am sanguine enough to believe that the day will come, when our most just and righteous claims will be allowed and our services more fully appreciated than they are at present; and I hope those who have not forwarded their subscriptions to Mr. Griffin (to whom we really owe so much) for the current year will do so without delay.

It was my intention to have said a few words in advocacy of the claims of the different benevolent institutions and charities in connection with our profession; but I fear I shall have trespassed too far already beyond the time which I may fairly occupy. I shall, therefore, only earnestly commend them to your continued support, particularly the "Fund" which is more especially associated with this Society. But while I thus call on you, and on all other members of our profession, to aid to the best of their ability in the sacred cause of charity, I may perhaps be permitted to point out, especially to our younger members (I am not very old myself, and what I say to them I will also say to myself) the desirability—nay, the absolute necessity—of beginning early to make themselves some provision for those who are dependent upon them. I cannot but come to the conclusion—I hope it is an erroneous one—when I read over the short abstracts of the particulars of the different cases which appeal to our sympathies, whether it be of those who are relieved by the Benevolent Fund, or of candidates for the shelter of the Royal Medical Benevolent College, that the practice of life-assurance is not so general amongst us as a body, as it should be. I cannot but think that we have less excuse for its neglect even than many others, exposed as we are to many sources of danger and infection; so that it becomes more especially important by every means to begin early to provide against times of difficulty and of trouble, that we may be to some extent ourselves, or that those may be whom perchance we love more than even we do ourselves, independent of charity, often sickening with hope deferred to seek after,

and obtained only after much humiliation and sorrow. For, independently of those trials and vicissitudes which await us all, at some time or other, at the hands of the Almighty disposer of events, we surely all of us have experienced that none are more subject to the caprices of an ever fickle and oftentimes ungenerous public; that the favourite of to-day gives place to the favourite of to-morrow; and that charlatanism and sycophancy too often usurp the place of modest merit and manly independence.

"O momentary grace of mortal men,
Which we more hunt for than the grace of God!
Who builds his hope in the air of men's fair looks,
Lives like a drunken sailor on a mast,
Ready with every nod to tumble down
Into the fatal bowels of the deep."

I have now only to thank you for the honour you have conferred on me by electing me to fill this chair, which I am only sorry was not filled by some of those members who are senior to me; and also for the kind attention with which you have favoured me whilst I have so far endeavoured to fulfil the first duty appertaining to the post.

Reviews and Notices.

UNTERSUCHUNGEN UEBER DIE INNERVATION DES HERZEN. Von ALBERT VON BEZOLD, Professor der Physiologie in Jena. Leipzig: 1863.

(RESEARCHES INTO THE INNERVATION OF THE HEART. By ALBERT VON BEZOLD, Professor of Physiology in Jena. Leipzig: 1863.)

PROFESSOR VON BEZOLD has been anxious, as he tells his readers in the introduction to the volume before us, to contribute his share to the elucidation of the great problem which has long agitated physiologists concerning the functions of the nerves of the heart.

The theory propounded by the brothers Weber, that the influence of the vagi is inhibitory, although generally accepted, has been far from meeting with universal favour; and, among its opponents, none rank higher than Professor Moleschott of Zurich. The result of this philosopher's experiments has been to convince him that the vagi and sympathetics are all exciters of the heart acting through the medium of ganglia; so that, if one nerve be irritated, the excitement is communicated to the rest, and thus to the entire muscular structure of the organ; and he argues, as do others with him, that cessation of muscular contraction is due, not to irritation of the par vagum, but to exhaustion consequent upon its over-excitement. To meet these views, von Bezold has entered the field. It would be beyond the intention of this notice to detail the experiments which he has made and here describes: they appear to have been devised and executed with the ingenuity and delicacy that marked his former investigations; and they lead him to the conclusion that Moleschott is wrong; and that the theory, which in this country was pretty well regarded as established, is correct. Irritation of the vagus the author finds always to check the heart's action, while the sympathetic has an exactly contrary effect. The two nerves, in short, instead of being all exciters, are antagonistic the one to the other. The author, however, considers that the nervous physiology of the heart is not yet explained, and he is himself engaged

in further investigations. Professor von Bezold, by previous labours, had established a claim to be heard upon any physiological subject; and upon a point where innervation is concerned, his views are certain to be of unusual value, specially connected as is that branch of the science with his studies as a pupil of Dubois-Reymond, and latterly as professor at the University of Jena. We therefore await the publication of his own more original views, at which he only hints in the present work, with no little interest.

OUTLINES OF SURGERY: being an Epitome of the Lectures on the Principles and Practice of Surgery delivered at St. Thomas's Hospital. By F. LE GROS CLARK, Surgeon to the Hospital, etc. Pp. 258. London: 1863.

This little work is put forth by the author as simply being what its title indicates it to be.

"The present *Outlines* comprise, for the most part, little more than the notes from which the author's lectures have been delivered, somewhat amplified; and they are offered to the student, in the hope that he may be encouraged to fill in the details from actual observation, and thereby cultivate a habit of self-reliance, instead of depending too much on book-teaching in his early studies..... Beyond this legitimate aim, the present volume can, of course, have no pretensions in common with more comprehensive Systems of Surgery."

The book contains the topics ordinarily treated in surgical lectures; and does not call for any special or lengthened remarks. Of necessity, the subjects are noticed in little more than outline; but the principles and practice inculcated are sound, and the book is likely to be of service to both students and practitioners who will use it in the manner in which Mr. LE GROS CLARK intends that it should be used.

THE WATERING-PLACES OF ENGLAND; considered with Reference to their Medical Topography and Remedial Resources. By EDWIN LEE, M.D. Fourth Edition, with Alterations and Additions. Re-issued. Pp. 339. London: 1863.

THE PRINCIPAL BATHS OF GERMANY, FRANCE, AND SWITZERLAND; considered with Reference to their Remedial Efficacy in Chronic Disease. By EDWIN LEE, M.D. Fourth Edition, with Alterations and Additions. First Volume: BATHS OF GERMANY. Pp. 308. London: 1863.

THESE works have been for some time before the profession, and hence do not require much notice in this place. Dr. LEE has made himself known as an able describer of the principal watering-places and baths of this country and the continent; and his works are written in so agreeable a style, and contain so much topographical as well as professional information, that it is not surprising that they should meet with favour.

His object has not been to discuss the theory of the production of mineral waters, or to attempt an arrangement of them, or of climates, according to their properties, as has been ably done by Drs. Althaus and Scoresby-Jackson. He simply, in the work on England, speaks of winter and summer places of resort; and in that on the Baths of Germany, he describes in the first part the baths of Rhenish Germany, and in the second those of Central Germany.

British Medical Journal.

SATURDAY, JULY 11TH, 1863.

THE LATE ELECTION OF COUNCILLORS AT THE COLLEGE OF SURGEONS.

WE most sincerely congratulate the profession on the results of the late election. The Fellows have at last become awake to a sense of their duty and of their power; and have shown a determination to exercise their power in the performance of their duty. There can be no mistake about the meaning of an election of this kind. It is full of significance. It is what our French friends call, in the intensity of the term, a *leçon*, and one which we will venture to say will not be readily forgotten.

The snug and quiet dream of the College officials has at length been rudely broken; a very unmistakable hint has been given to them that they must straightway put their house in order; and that the Fellows of the College have at length felt and mean to exert the power which lies in their hands.

We think that we may fairly claim for the JOURNAL of this Association the main share of credit in bringing about this first step to a reform in the management of the Royal College of Surgeons of England. It was in this JOURNAL that the whole history of the abuses of the College was first detailed, and prominently brought under the consideration of the profession at large; and it was, indeed, through this JOURNAL that the anomalous and extraordinary proceedings of the Council and of the Examiners were fully laid bare to the investigation of the Fellows and Members of the College. Throughout our campaign in this direction, we have carefully abstained from making this, in the smallest sense, a personal question. We have looked upon it simply as an attack upon hereditary abuses inherent in the general management of the College, and not as pertaining to the conduct of any particular member of the Council-family. And we still intend to regard the matter in this light. For it is not to be supposed that we have as yet actually obtained any positive reform in the many existing abuses. What the Fellows have as yet done is to declare, that men who will not carry out, nor do their best to assist in carrying out, the terms of the last Charter delivered to the College, are unworthy of, and shall not have, their support. This is a grand step; but it is only a step gained.

Let it, therefore, be fully understood. We are not going to relax our exertions in the matter, until such times as we see the reforms actually carried into practice. Reforming minds have been before this elected into the Council, and when in office have

soon undergone a quieting process, which has put an end to all their fine dreams and promises. We know the sort of pressure which has been so often applied to restless members of Council; and the processes under which they have been reduced to a reasonable and sober silence. We shall, therefore, only believe in the perfected regeneration of the Council when we see its regenerated works. We shall believe that the Council has raised itself to an appreciation of its high duties, when we see it take the first step in bringing its proceedings into due accordance with the terms of its Charter—with the spirit of the age in which we live. We shall believe in the Council's honesty when we see them elect an Examiner from the body of Fellows of the College outside the Council and outside the Court of Examiners; when we see them place on the Court of Examiners men fully capable of examining in the anatomy and physiology, and the surgery of the year 1863. We shall believe in them when they cease to re-elect year after year the same retiring hexagenarian and septuagenarian Examiners back into office. We shall believe in them, in fact, when they perform one single one of those many acts of reform prescribed by their last Charter, and of which they have hitherto so carefully and shamefully eluded the performance.

The Council have had their due warning. Let them set their house in order. Every year Councillors retire, and may offer themselves for re-election. But not as heretofore, we must presume, will their re-election be a matter of course. That quiet dream has been dispelled by last week's vote. Those gentlemen in Council, therefore, who look for a long term of life there should show some signs of vitality in office; should give proof to the profession at large (in the way above indicated) that they are worthy of the reward of being re-elected. They should prove that they can take care of the interests of the profession at large as well as of their own. They should let the profession know that they feel the responsibility attaching to the office which they hold.

We cannot, indeed, doubt for a moment that the death-knell of the official life of many of the Council has already been rung; and that, in fact, there are members of Council who need not look with any fervent hopes of success for the day of their re-election.

The result of the election which last week took place is an unmistakable indication of the intention of the Fellows. They mean to have a thorough reform in the management of that rich and heretofore supercilious and selfish Corporation; and truly their intention is simply the performance of their duty.

All other corporations have undergone changes, and have been brought into some kind of accord with the spirit of the age; but this one, buried in a narrow-minded selfishness, has hitherto denied, and

successfully, all the assaults of what it has deemed its enemy.

How different, for example, the conduct of the College of Surgeons from the conduct of the College of Physicians in this respect. The College of Physicians surrendered voluntarily many of its ancient and most powerful privileges—privileges secured by Act of Parliament. The elects voluntarily performed many serious acts of abnegation in order that their College might do its duty to the profession at large; and assuredly the College has had its reward. It has gained the confidence and respect of the whole profession; whilst, on the other hand, the College of Surgeons has not only not initiated any liberal measure of reform, but it has actually strenuously opposed, or rather eluded, the performance of its plain duty as prescribed by the terms of its Charter. And the College of Surgeons has also had its reward. It possesses neither the confidence nor the respect of the profession.

We are sure we need not remind those gentlemen who have even now been elected into the Council of the duty which they owe to those who elected them. We are satisfied that those gentlemen must feel that the confidence of the Fellows was bestowed upon them for a distinct purpose; the Fellows did not place them on that Council simply to do as others there have done before them; viz., to fall into the groove of custom, to be quiet, and obedient to the ancient and powerful spirit of misrule which impregnates the Council-chamber, to bide their time, and, by a satisfactory course of passive obedience to the dominant rulers in Council and at the Examiners' Board, to earn their right to a participation in the future riches of an Examiner's berth. We believe that these gentlemen have all of them both the conscience to remind them of the principles on which they have been elected, and the independence and courage required to sustain them in attempting to carry out those principles within the walls of the Council.

Let it then be clearly understood by the profession, that this election is in itself no act of reformation effected within the Council of the College; that the work has yet all to be done; and that nothing less than an actual practical obedience to the terms and injunctions of the Charter can demonstrate the real regeneration of the Council. What the election of last week has done is this: it shows that the Fellows' intention is to have the Charter carried out.

THE COLLEGE OF SURGEONS: ITS MODE OF ELECTING COUNCILLORS.

A CORRESPONDENT, "F.R.C.S.," writes to reassure the minds of those Fellows who may have been disturbed by our remarks on the above mentioned sub-

ject. F.R.C.S. naturally defends the mode of election of its Council adopted by the Royal College of Surgeons. He promises us that the proceeding is very good. We are well aware that the most crying abuses will never want defenders; but are satisfied that, when our friend has had a little more experience in, and has made himself more thoroughly acquainted with, the subject he writes upon, he will be the last to defend the system which he appears now to think as near perfection as things of the sort can be. We have, it is true, denounced the mode of election of Council adopted by the College of Surgeons, as being contrary to common sense; as being possibly very unjust; as being possibly productive of and fostering jobbery and electioneering trickery; and as favourable to the interests of the jobber, and, *per contra*, of course seriously detrimental to the interests of the independent and high-minded candidate. We maintain every one of these positions, because we know them to be true. Thus, it is contrary to common sense; because, under its protection, men may be and are elected into the Council notwithstanding the fact that a large majority of the Fellows *present and electing* actually vote against them! Manifestly, therefore, it may be unjust; because the results of the election are not necessarily a true expression of the opinions of the majority of the voting and electing Fellows. It favours jobbery; because it enables, and therefore encourages, skilful electioneers, by making a careful book, so to run their man as to give him the advantages of electioneering trickery; and on this score, if F.R.C.S. would like an example of the kind, we will give him a sketch of a College election whereat the following clever jockeying was successfully practised. A., who thought his election pretty safe, agreed to run with B., the friends of each backing the other; but at the last moment it was discovered that, if A.'s backers honestly kept their engagement by voting for B., B. would win. A.'s friends, therefore, who had pledged themselves to split their vote with B., throw B. overboard at the last moment, and plump for A. A., therefore, jockeys his friend B. out of the election. That the mode of election, therefore, is more favourable to the jobber than the high minded man, needs no further demonstration.

But F.R.C.S. says, that this sort of election is just the way things are done all over the country. To this we answer: that we will defy him to mention a single instance of any medical college, royal society, or other learned corporation, wherein such an outrageous method of election is adopted. At the Royal College of Physicians, when the Fellows meet to elect their Council, they follow common sense and justice. Every member of Council is elected separately; and he must have a majority of the votes of Fellows present and electing. The result is, that there is neither trickery nor jobbery at such elec-

tions; and men are not elected Councillors in the teeth of a majority voting against them.

If there are three vacancies in the Council, we maintain that the honest voter will vote for three men to fill them. But we know that many Fellows plump on these occasions; and then, of necessity, it follows that the candidates of the plumping voters get a most unfair advantage over the others. We are sure that F.R.C.S. will not venture to say that this jockeying business of plumping is fair. But if it be not—*i. e.*, if it be unfair—how can he defend the system which permits it?

It is all very well to say that this method of election is as good as another; but we deny that it is; we prove by facts that a worse could not exist. We turn to other institutions where elections are carried on honestly and reasonably, and we there point out good systems in action.

Let us have no cavilling and special pleading. The facts are in a nutshell. The Fellows meet together, bound in duty to elect, for example, *three* fit and proper men to fill vacant seats in Council. Where is the man in the profession who has the courage publicly to declare, under such circumstances, that it is fair, upright, honourable, and in accordance with his duty as a Fellow and a voter, to vote for one candidate only? He who thus votes does so simply for the reason that he cares not who else gets into or is kept out of the Council, if only he can thereby job his own friend in. Certainly, if all Fellows did their honest duty as voters, such tricks could not be played. If all Fellows had a conscience, and felt their responsibilities; if they all met together conscientiously to fill with proper men the vacant seats in Council—then, under the present system, a fair election might be had. But the truth is, all men do not meet and vote under the influence of conscience and to perform a solemn duty; they vote to get a friend into the Council, and they take advantage of the tricks which can be so well played under the present system. And is it too much to ask that a system which admits of such a game should be altered? And, after all, why object to the plain and common sense method adopted by the College of Physicians and other corporations? Why not elect each Councillor separately, and make a majority of half of the votes of Fellows present absolutely requisite? Or why not insist that each voter shall vote for as many candidates as there are vacancies; and that no Fellow shall be elected to the Council who has not a majority of the votes of Fellows electing?

We have thought it right to put down these facts for the benefit of those of our readers who may have, like F.R.C.S., only superficially considered the subject; and we are fully satisfied that he and they will, on further consideration, admit that all we have said of the system of election of Councillors by the

Royal College of Surgeons of England is quite correct.

THE WEEK.

THE profession will be glad to hear that Sir C. Lock has entirely recovered from his late serious accident.

It is well to note the increasing interest which the Fellows of the College of Surgeons are taking in the management of their College. We doubt whether any member of the Council has ever received so many votes as Mr. Lane received at the late election. In 1861, Mr. Solly, who was at the head of the poll, had 152 votes; in 1862, Mr. Cock had 126 votes; and in 1863, Mr. Lane obtains 199 votes. We believe that at the late election the number of Fellows present and voting was 312. Consequently, Mr. Lane was elected by a majority of 43 votes. Mr. Busk had 168, and had therefore a majority of 12. Mr. Hancock's number of votes was 153, and consequently he was elected by a minority of 3. Of the votes given, 40, we believe, were plumpers—17 of which went to Mr. Hancock, 10 to Mr. Lane, 5 to Mr. Curling, 4 to Mr. Hawkins, 3 to Mr. Tatum, and 1 to Mr. Busk; 25 votes were double votes; the rest, about 244, were treble votes—the only ones which we call fair and proper votes.

THE following resolution was unanimously adopted at the meeting of the Yorkshire Branch of the British Medical Association, held in Sheffield on June 18th.

"That this meeting desires to join in the general expression of sympathy with Mr. Adams, exhibited by the profession throughout the kingdom, under the trying circumstances in which he has been recently placed; and "that the secretary be requested to convey the same to Mr. Adams."

THE Surgeon-General of the United States Army has issued an order "striking calomel and tartar emetic from the supply list". Calomel is struck off because of "its abuse by military surgeons". The Surgeon-General says that he is officially informed that "not only profuse salivation has been produced in innumerable cases, but that mercurial gangrene is of not unfrequent occurrence". He finds it impossible to restrict its use, so he has ordered it to be "stricken from the list of remedies". He adds, that he issues such an order with the more confidence, "as modern pathology has proved the impropriety of the use of mercury in very many of those diseases in which it was formerly unfailingly administered". Tartar emetic the Surgeon-General has also stricken from the supply table, "for the reason that diseases prevalent in the army may be treated

as efficiently without tartar emetic as therewith". There are, however, "still on the supply table several of the more eligible and useful preparations of mercury. There is the blue mass, mercury and chalk, bichloride, iodide, etc., all much more elegant than calomel, and far more likely to give the beneficial effects of mercury without the unfavourable results."

We are happy to hear that the King of the Belgians continues to improve since our last report of him. There is, we understand, every reason to hope that no fragment of the stone now remains in the bladder; in fact, that Mr. Henry Thompson has been perfectly successful in his operation. Of course, in a case of this nature—phosphatic calculus—it is impossible to say that no new formation of calculus will occur. At all events, it is very gratifying to learn that there are now no existing symptoms indicative of the presence of any fragment in the bladder. There is complete absence of pain during exercise and at all other times; and the royal patient is, we hear, now in excellent health.

A MEETING of the medical men residing in Bedford and the neighbourhood was held on Monday last, *in re* Mr. Coombs and homœopathy. The meeting requested from Mr. Coombs a written pledge "that he will not in future practise homœopathy, and that he will discontinue the use of the title of M.D. from a homœopathic College." To the first of these conditions he assented; but refused to relinquish the M.D. Whereupon the meeting passed a resolution congratulating him on his repudiation of homœopathy, but refusing to meet him in consultation until he also relinquished his homœopathic degree. Resolutions against meeting in consultation those who consult with homœopaths, and in disapproval of calling on new comers for the purpose of securing them as patients, were also passed; and a Bedford Medico-Ethical Society was constituted.

M. GAVARRET, in the names of MM. Bouillaud, Grisolles, and Bécлар, has delivered to the Academy of Medicine a report on the cardiographic apparatus and late experiments of MM. Chauveau and Marey on the movements of the heart. These experiments demonstrate the following conclusions:—1. There is an absolute synchronism between the active and passive movements of the two ventricles; and also between the active and passive movements of the ventricles and the increase and diminution of the heart's pressure against the thoracic walls. 2. There is a regular alternation between the movements of the auricles and of the ventricles; in other words, the active movement of the auricles is executed wholly during the passive movement of the ventri-

cles, and *vice versa*. From observations made upon a horse, whose pulse beat fifty times per minute, and in whom, consequently, each cardiac revolution was completed in one second and two-tenths, it was found that the cardiac revolution commences with the auricular systole. The contraction of the auricular walls is rapid, lasting one-tenth of a second, and is immediately followed by their complete relaxation, which is also performed in one-tenth of a second. During the rest of the cardiac revolution, *i.e.*, during the following second the auricle is passively dilated by the blood which flows into it from the veins. Then follows another auricular systole, which marks the commencement of another cardiac revolution. The ventricular systole commences at the moment when the auricles are completely relaxed, two-tenths of a second after the commencement of the cardiac revolution; their rapid contraction is effected in five-hundredths of a second, and is maintained during thirty-five hundredths of a second, whilst the auricles are being gradually dilated. During the remaining time—forty-five hundredths of a second—of the cardiac revolution, the ventricles are passively dilated with the blood which enters them through the widely opened auriculo-ventricular orifice. This passive dilatation is prolonged into and during the first two-tenths of a second of the following cardiac revolution which correspond with the contraction and dilatation of the auricular walls. Hence, the auricle is in action only during one-twelfth part of the cardiac revolution; whilst the duration of the contractile action of the ventricles is four times greater, and in fact occupies one-third of the revolution. The impulse of the heart against the walls of the thorax undoubtedly depends upon the sudden contraction of the ventricles.

THE *Chemical News* has the following remarks on the proposed clauses in the Medical Act to regulate the practice of druggists and chemists.

"Usurpers have always been found ready with an excuse for their proceedings, and no one therefore will be surprised to read in the preamble of the new Act that it is 'for the safety and protection of the public' that the Medical Council propose to take away the dispensing business from some thousands of chemists and druggists, and probably mulct the remainder in two guineas for carrying on an occupation which is already legitimately theirs. Some persons will find the readiest explanation of the movement in the financial circumstances of the Medical Council. It would seem from the balance-sheets that that learned body is what is vulgarly called 'hard-up.' They find a difficulty—always a painful thing to men of liberal minds—in making both ends meet. The expenses of a Council gathered together at intervals from all parts of the kingdom are necessarily considerable. The regular income is necessarily restricted. The money obtained from the medical profession for the general registration has been spent, and the future looks unpromising. Under these circumstances, it is no wonder that the Council should seek extended sources of income, and nothing more natural than that they should attempt to plunder chemists and

druggists. The xxth section of the new Act is to enable the Council to regulate the education and examination of the chemist and druggist. What this regulation will be it is not difficult to foretell. It will consist probably in compelling attendance on courses of lectures on theoretical and practical chemistry, materia medica and pharmacy, and on botany, and in enforcing an examination on these subjects as well as in Latin and prescriptions. Against the examination, if it were conducted by a proper tribunal, we have nothing to say; but we have a most decided objection to the compulsory attendance on lectures. We have urged before that it is of no consequence to an examining Board to know how, when, or where a man acquired his knowledge; the sole business of the Board is to make sure that he is possessed of that knowledge. The great fault of the medical system is that it assumes to a great extent the possession of the knowledge from the certified opportunities of acquiring it—often a most mistaken interference, as all acquainted with the profession well know. The existence of such a system, however, is easily explained by the fact that all the regulations have been made by lecturers and teachers. To guard against misunderstanding, however, we may state at once that it must not be inferred from our opposition to this measure that we are adverse to the improvement of the intellectual and social condition of the chemist and druggist. Quite the contrary; we should hail with satisfaction any measure which proposed to effect this end in a fair and honourable way; and in a future number we will endeavour to suggest a plan for the purpose."

M. Bouley has pointed out an important circumstance to the Academy, which will doubtless occasion much discussion. A horse was brought to him affected with aphthous stomatitis. He thereupon inoculated the liquid aphthous matter on the teat of a cow, on the 10th of last June. On the 18th, of five punctures, four presented pustules perfectly identical with cow-pox. M. Bouley then inoculated two infants with matter taken from these pustules. In one of the infants, three perfect pustules, identical with vaccine pustules, were developed. This child was presented to the Academy. Moreover, five pupils at Alfort, all previously vaccinated, were inoculated with this new matter, which produced in them a more or less well marked pustulation, similar to that produced by vaccination.

The present meeting of the Society of Scandinavian Naturalists is held at Stockholm, from the 8th to the 15th of the present month.

Professor Scanzoni has gone to St. Petersburg, to attend the Empress of Russia during her confinement.

"Clinical observation", said M. Morel-Lavallée the other day at the Société de Chirurgie, "shows remarkable results. M. Dolbeau is a young man, and he has performed urethrotomy thirty-seven times; whilst I, who have been much longer in practice, have never performed that operation. I am convinced that urethrotomy is much abused." M. Velpeau remarked: "What I think of the matter is this: I am satisfied that dilatation is the most convenient and the safest method of treating strictures; but the treatment is not in all cases successful. I

have cauterised and I have incised strictures; but I have not found that these methods succeed better than dilatation; and I should not be surprised if some of M. Dolbeau's patients come back into his hands. I have performed urethrotomy about forty times, and I have seen many of them suffer from fresh strictures. I have seen other surgeons perform the operation, but with no greater success than myself. But urethrotomy is infinitely more dangerous than dilatation. I have lost patients after this operation, and I have known other surgeons to do the same. The section of strictures, therefore, should be regarded as a very exceptional operation."

M. Barral has presented to the Academy of Sciences some remarks of much interest concerning the crust of bread and the gluten contained in it. He had recently shown that, when equally dried, the crust of bread is more highly azotised than the crumb; and he also showed that the crust was more soluble than the crumb in water. M. Payen had, it is true, previously pointed out this greater solubility of the crust, and had ascribed it to the conversion of the starch into dextrine during the baking. But M. Barral's experiments show another important fact. "If", he says, "we exhaust with water an equal quantity of dry crust and dry crumb of bread, we find that the soluble portion of the crust consists of from 7 to 8 per cent. of nitrogen, whilst the soluble portion of the crumb contains only from 2 to 3 per cent. The greater solubility of the crust, consequently, depends upon the transformation which its gluten has undergone under the direct action of the 200° to 220° heat of the oven. The soluble portion of the crust is more highly azotised than the juice of meat." M. Barral added, that he was still engaged with his experiments, which he hoped would throw some new light on panification.

MM. Dechambre and Delpech have still further investigated the subject of the discoloration of tincture of iodine by urine. They have already shown that this test, proposed by Trousseau as a test for sugar in the urine, is of no value. The decolorisation, according to them, depends upon the presence of saline matter in the urine, and particularly of uric acid and the urates. Lately, they have operated with the alkaline urine of carnivorous and herbivorous animals; and they find that the decolorising power of the urine of carnivorous animals is very great, and that of herbivorous animals scarcely appreciable.

There is a class of doctors in France called *médecins des morts*. Their duty is to verify the death of the party, and to judge whether he has or not died in an extraordinary way. The pay of these doctors in Paris is 2 francs per verification! This pay is as good as 2s. per vaccination; and yet our French brethren are indignant at the price!

THE ADAMS DEFENCE FUND.

DR. RICHARDSON, Chairman, and Mr. Walker, Treasurer, of the Adams Defence Fund, have called the attention of the profession to the proceedings held at a meeting of the Committee on the 23rd ult.

They invite a perusal of a letter from a relative of the plaintiff in the late action; a letter which the Committee considers to be most creditable to the writer, and a perfectly conclusive vindication of Mr. Adams. This opinion, they are happy to say, is also held by the learned Chief Baron who presided at the trial.

In the second place, they draw attention to the state of the fund. Mr. Adams's legal expenses "amount to £1011:9:4, a sum which it is felt should not be levied on any professional man in a similar position, without an attempt to meet it by the profession at large. Up to this time, nearly £400 has been subscribed; and the Committee feels sure that if the fact of the existence of the fund were more widely known, it would be supported by every practitioner."

The following is the letter referred to:—

"9, Trinity College, Dublin, May 12th, 1863.

"SIR,—As the executor of the late Rev. Edward Kent, the brother of Mrs. Russell, who has given you so much annoyance, I deem it my duty to communicate to you my opinion and that of her family respecting her conduct.

"The first knowledge I had of the action against you was the trial reported in the Irish papers. Had I known that such an event was to take place, I should gladly have volunteered my evidence against her unjustifiable attempt. But I believe that even now a letter from me may be of some use to you in dispelling the doubts, if any exist, respecting your conduct towards her daughter.

"It seems then, from her own evidence, that she boasted of her connections; but she forgot to state that she had been for years discountenanced and disavowed by them.

"I am nearly sixteen years married to her niece, and I never spoke a word with her, and she never was in my house. Her brother, the Rev. Edward Kent, died in London on the 8th of January, before the trial took place, and yet she knew nothing of it, although he was dying for more than a year. This must prove, at all events, that she was kept at a distance by us.

"I have had a good deal of correspondence, rather from her than with her, for I acted as her brother's agent in paying her a small annuity, on condition that she should not correspond, directly or indirectly, with him, who was of a rather excitable temperament; and on several occasions I had to stop her monthly allowance when she acted contrary to his wishes in this respect.

"I have consulted the family, and they request me, in their name, to express to you the indignation which they feel at Mrs. Russell's conduct, their sympathy with you and your family, for the trouble in which your benevolence has involved you, and the assurance that they completely disbelieve the accusations brought by her against your moral character.

"I am, sir, your faithful servant,

"J. G. ABELTSHAUSER,

"Professor University of Dublin; Rector of Derrylosary, County of Wicklow; Chaplain to His Excellency the Lord-Lieutenant of Ireland.

"W. Adams, Esq., London.

"P.S. Any information I can give that may be useful to you is at your service."

Association Intelligence.

BRITISH MEDICAL ASSOCIATION:
ANNUAL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association will be holden at Bristol, on Wednesday, Thursday, and Friday, the 5th, 6th, and 7th days of August.

President—GEORGE BURROWS, M.D., F.R.C.P., F.R.S., London.

President-elect—JOHN ADDINGTON SYMONDS, M.D., F.R.C.P., F.R.S.Ed., Clifton.

All the meetings will take place at the Victoria Rooms, Clifton.

WEDNESDAY, August 5th.

1 P.M. Meeting of Committee of Council.

2.30 P.M. Meeting of the General Council.

4 P.M. First General Meeting of Members. The retiring President (Dr. Burrows) will make a few remarks. The new President (Dr. Symonds) will deliver an Address. The Report of Council will be presented, and other business transacted.

9 P.M. Through the kindness of the Committee, a *Conversazione* will be held at the Literary and Philosophical Institution, Bristol.

THURSDAY, August 6th.

11 A.M. Meeting of the Members of the New Council.

12 NOON. Second General Meeting of Members. The Address in Medicine will be read by WILLIAM BUDD, M.D. Papers and Cases will be read.

3.30 P.M. The Address in Surgery will be read by AUGUSTIN PRICHARD, Esq.

The Report of the Medical Benevolent Fund will be presented.

Papers and Cases will be read.

9 P.M. By the kind invitation of the President (Dr. Symonds) a *Soirée* will be held at his residence, Clifton Hill House, Clifton.

FRIDAY, August 7th.

12 NOON. Third General Meeting of Members. The Address in Chemistry in its Relations to Medicine will be given by WILLIAM B. HERAPATH, M.D., F.R.S. Papers and Cases will be read.

3.30 P.M. The Address in Midwifery will be read by J. G. SWAYNE, M.D. Papers and Cases will be read.

6.45 P.M. Dinner at the Victoria Rooms. Tickets One Guinea each. Gentlemen intending to be present at the Dinner are requested to send notice, as soon as possible, to Dr. MARSHALL, 8, The Mall, Clifton.

Members are requested to enter, on arrival, their names and addresses in the Reception Room at the Victoria Rooms, where cards will be supplied which will secure admission to all the proceedings.

Refreshments will be provided in the Victoria Rooms during the Meetings.

Members who wish for previous information may communicate with Dr. MARSHALL, 8, The Mall, Clifton.

Papers have been promised by T. S. Fletcher, Esq. (Bromsgrove); Graily Hewitt, M.D. (London); Lionel Beale, M.B., F.R.S. (London); G. F. Burder, M.D. (Bristol); W. O. Markham, M.D. (London); B. W. Richardson, M.D. (London); A. P. Stewart, M.D. (London); R. W. Coe, Esq. (Bristol).

Papers and Cases will be read in the order of the dates at which notice of them has been received by the General Secretary.

Alteration of Laws. Notice of the following new Laws has been given by W. O. MARKHAM, M.D.

At each Annual Meeting of the Association, the Secretary shall lay before the first meeting of the Council a List of the Members of the Association, together with a separate List of all Members whose Subscriptions are in arrear, and the amount of Subscriptions due from each Member.

This List shall be at once referred to a Committee, consisting of four or more Members of the Council (three of whom shall form a quorum), together with the President and the Secretary. The Committee shall thereupon proceed to settle the List of Members for the ensuing year, retaining or erasing, as they may think fit, the names of any Members who are in arrear: provided always, that no person shall remain a Member of the Association who is more than two years in arrear. The List of Members thus corrected shall be presented to a subsequent Meeting of the Council, and shall, with their approval, be published immediately after the Annual Meeting.

The Secretary shall in each year, during the first week of June, supply the Editor of the JOURNAL with the names of all those Members of the Association whose Subscriptions have not been paid up to the 31st day of May in each year.

Notice of the following alteration has also been given by Dr. Markham.

In Law 15, for the words "twelve months", to substitute the words "five months".

PHILIP H. WILLIAMS, M.D., *Gen. Sec.*

Worcester, June 30th, 1863.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
SOUTH-WESTERN. [Annual.]	Board Room of the Devon and Exeter Hospital.	Wednesday, July 22nd, 3 P.M.

BATH AND BRISTOL BRANCH: ERRATUM.

Representatives in the General Council. In the report of the annual meeting of the Bath and Bristol Branch, in last week's JOURNAL (page 19, col. i, line 1), the name of W. J. Church, Esq. (Bath), was by error printed in place of R. N. Stone, Esq. (Bath.)

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

The Annual Meeting of the South-Western Branch will take place on Wednesday, July 22nd, at the Board-room of the Devon and Exeter Hospital, at 3 P.M. President-elect, Samuel Budd, M.D.

Dinner at Pratt's Hotel, Exeter, at 5 P.M.

C. H. ROPER, *Hon. Sec.*

YORKSHIRE BRANCH: ANNUAL MEETING.

The Annual Meeting of the Yorkshire Branch was held in the Cutlers' Hall, Sheffield, on June 18th; J. HAXWORTH, Esq., in the Chair.

Thanks to the retiring President. A vote of thanks was accorded to Dr. Shann for the courteous and efficient manner in which he had performed the duties of President during the past year.

Report of Council. The Secretary read the following report.

"Your Council have great pleasure in again meeting their fellow-members of the Yorkshire Branch of the British Medical Association in Sheffield, at this their anniversary.

"They would, in the first place, congratulate you on

the absence of any exciting subject in the arena of medical politics; which, while it relieves them of the necessity of introducing such subjects for discussion into their report, leaves the time and attention of the members free for the more pleasing and profitable consideration of the practical and scientific departments of their profession.

"Your Council have to regret the loss by death of one of their body, Dr. Simpson of York, one of the original and most valued members of the Branch, and one of the Vice-Presidents of the Parent Society; who held the office of President when the Association met at York, during an eventful period of its existence. Dr. Simpson's conciliatory manner, his great conversational powers, and his extensive professional acquirements, rendered him a valued member of this Branch (whose meetings he regularly attended), and will ever endear his memory to those who had the pleasure of his acquaintance; and his name will long be remembered with respect, both by the profession, and by the public who profited so largely by his professional abilities.

"Your Council, ever regarding with deep interest matters concerning the honour and dignity of the profession, feel that some expression of sympathy with Dr. Waters of Chester, under the trying circumstances of his late trial (*Bromwich v. Waters*), should emanate from this meeting; and they beg to call your attention to some resolutions, with reference to some questions of medical ethics resulting from this trial, which are to be brought forward for discussion at the annual meeting of the Metropolitan Counties Branch. Your Council would especially endorse the opinion, 'that no member of the profession is justified in expressing, in a court of law, an opinion as to the treatment adopted by a professional man, when his knowledge of the treatment employed in a given case is derived solely from the non-professional statements of the patient or his friends.'

"Your Council are glad to find that the change in the pharmacopœial weights, against which a protest was adopted at our last annual meeting, has been abandoned by the Medical Council. They are also happy to find that a newly formed *Pharmacopœia* for the three kingdoms will soon be in the hands of the profession.

"The JOURNAL of the Association, under the energetic and judicious management of Dr. Markham, still continues to improve. Your Council feel that it is now an able and satisfactory exponent of the principles of the Association, and a creditable representative of the professional status of its members.

"Bearing in mind the object for which the Association was formed—viz., to promote the progress of medical science, to uphold the honour of the profession, and to improve its social standing—your Council feel that the numbers of its members do not bear a favourable comparison with the number of the profession at large. They recognise the stimulus given by the meeting in London, and acknowledge with pleasure the individual efforts made by our worthy President and his metropolitan brethren to increase the number of our associates; and again suggest, as another means of attaining that object, that we should endeavour to make our Branch meetings more useful and attractive, by securing a supply of interesting papers and cases."

Dr. HALL moved, and it was resolved—

"That the report be received and adopted."

Branch Council for 1863-4. The following members were elected to form the Council of the Branch for the ensuing year:—W. E. Swaine, M.D.; C. Williams, M.D.; G. Shann, M.D.; B. Dodsworth, Esq.; W. D. Husband, Esq.; W. Matterson, Esq.; H. Keyworth, Esq. (York); J. P. Garlick, Esq.; W. Hey, Esq.; T. Nunneley, Esq.; T. P. Teale, Esq.; S. Smith, Esq.; and C. Chadwick, M.D. (Leeds); H. Jackson, Esq.; J. Haxworth, Esq.; F. Branson, M.D.; and J. C. Hall, M.D. (Sheffield); and J. Ness, Esq. (Helmsley).

Representatives in the General Council. W. D. HUSBAND, Esq. (York); C. Chadwick, M.D.; and T. Nunneley, Esq. (Leeds); C. Williams, M.D. (York); and J. Benson, Esq.; and J. Haxworth, Esq. (Sheffield)—were nominated to represent the Branch during the ensuing year in the General Council of the Association.

Votes of Sympathy with Dr. Waters and Mr. Adams. Dr. J. HALL proposed, Mr. S. HEY seconded, and it was resolved—

"That this meeting desires to join in the general expression of sympathy with Dr. Waters exhibited by the profession throughout the kingdom under the trying circumstances in which he has been recently placed; and that the Secretary be requested to communicate the same to Dr. Waters."

A similar resolution, expressing the sympathy of the meeting with Mr. Adams, was unanimously passed, and requested to be forwarded to that gentleman by the Secretary.

Place of Meeting in 1864: President-elect. Mr. H. JACKSON proposed, Mr. GARLICK seconded, and it was resolved—

"That the next annual meeting be held in Leeds; and that Samuel Hey, Esq., be the President-elect."

The Secretary. A vote of thanks to the Secretary was proposed by Mr. H. JACKSON for his past services, with a request that he would continue them.

Communications. 1. Mr. S. Hey exhibited a prostatic calculus of unusual size, extracted by him during life. Its weight was eleven ounces, two drachms, and two scruples.

2. Mr. H. Jackson exhibited a calculus weighing five drachms and two scruples, which had been removed from the urethra of a female by vaginal section. The case occurred in the practice of J. Ward, Esq., of Penistone.

[The particulars of these two interesting cases shall appear in an early number of the JOURNAL.]

3. Mr. Ward mentioned also another case in which surgical interference was not allowed, and in which ulceration and infiltration occurred, and death ensued. The calculus was nearly as large as the one exhibited. No record of so large a stone removed from the urethra of the female had been met with by Mr. Ward or Mr. H. Jackson; and Dr. Aveling stated that he had not been able to meet with one.

4. Mr. Jackson also laid on the table a calculus of considerable size, which had been removed by dilatation from the female bladder by the late Mr. Storrs of Doncaster, and which was exhibited by Mr. Storrs at the first meeting of the Association held in York. The patient recovered well, without any incontinence.

5. Dr. Aveling exhibited a very useful variety of the wire suture, an ingenious contrivance whereby its removal is greatly facilitated. He kindly gave specimens to the members present.

The members and visitors afterwards dined together at the Royal Hotel.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE annual meeting of the South-Eastern Branch was held at the Bull Inn, Rochester, on Wednesday, June 24. Thirty members were present; J. ARMSTRONG, M.D., of Gravesend, President, took the chair, and delivered an interesting and eloquent address, which was published at p. 8 of last week's JOURNAL.

Report of Council. Mr. HALLOWES, in the absence of Mr. Peter Martin, read the following report:—

"The Council of the South-Eastern Branch have much pleasure in meeting their brother members again in North Kent.

"Since the annual meeting held at Chatham in 1856,

there has been a large increase in the number of members of the Branch; and this increase has been, to a great extent, due to the establishment of local meetings in this district. The local meetings of the district between Maidstone and Gravesend, having Rochester for its centre, have been always well attended, and have been profitable both as regards scientific discussion and social enjoyment.

"At the annual meeting of the Branch held last year, it was directed that a petition against the present unequal and unjust assessment of the income-tax should be presented during the present session. In accordance with this resolution, a petition was prepared; was signed by the President on behalf of the Branch; and was duly presented by Mr. W. S. Leveson Gower, M.P. No change has yet been made in the assessment of precarious as distinguished from permanent incomes; but the Council feel confident that the income-tax being, as it is certain to be, a permanent institution, the Government will find the necessity of fixing it on a more equitable basis.

"The subject which has been most prominently before the medical profession of late, and which attracts the attention of every one, is the number of actions at law brought against medical men, and the evidence given in such cases by members of the medical profession. This matter has really become a crying evil, to which the Council earnestly direct the attention of this meeting. The question has been ably handled by the editor of the BRITISH MEDICAL JOURNAL; and the Council desires to express its strong approval of the articles in the JOURNAL on the case of Bromwich v. Waters. When a case of professional delinquency occurs, it is the duty—no doubt, a painful duty—of any member of the profession to testify as to the facts which may have come under his notice, regardless of anything but of the truth of his statements, the accuracy of his observation, and the reality of his facts. But, unfortunately, we have seen of late men of a position more or less high in the medical world, setting forth their opinions as facts, and bringing these opinions before a tribunal generally quite unable to appreciate their just value, in order to procure the condemnation of their brethren.

"The Council recommends this meeting, in view of the importance of the matter to every member of this Association, to express its strong disapproval of any medical man bringing his hypothetical opinions into the witness-box, adversely to another member of the profession; considering such conduct to be not only contrary to professional etiquette, but to professional morality. Independently of the celebrated case tried at the last Chester Assizes, several actions for malapraxis have been brought during the last two years on the most trivial grounds; others on no grounds at all, but simply as a speculation; but it must be said with regret, that on no such occasion has medical testimony been wanting in support of the charge, however frivolous. It must be confessed that this state of things is discreditable and deeply to be deplored; it may be hoped, however, that it has arisen more from want of consideration as to the nature and effects of evidence than from any other cause; and that the notice now taken of it by the journals and by meetings like the present, may put a stop to the evil."

Mr. FRY (Maidstone), in moving the adoption of the report, said it was highly satisfactory. With regard to that part of it which referred to the JOURNAL, he thought they must all endorse what had been said respecting the admirable way in which it was conducted. The JOURNAL had been very much abused and vilified; but, being in the habit of reading that and the other medical papers, he was in a position to say that it beat all others, and had especially improved since their recent editor's (Dr. Markham's) appointment.

Dr. MARTIN (Rochester) seconded the adoption of the report, which was unanimously agreed to.

Treasurer's Report. The Treasurer's Account was then read; and it appeared that there was a balance in hand of £30:11:9.

Representatives in the General Council. The Secretary reported that the voting-papers of the members having been received, the following gentlemen were found to be elected:—George Bottomley, Esq., Croydon; Thomas Boycott, M.D., Canterbury; J. Cordy Burrows, Esq., Brighton; Alfred Carpenter, M.D., Croydon; Henry Collett, M.D., Worthing; Frederick Fry, Esq., Maidstone; William Sankey, Esq., Dover; T. Heckstall Smith, Esq., St. Mary Cray; C. M. Thompson, Esq., Westerham; Edward Westall, M.D., Caterham.

Council of the Branch. The following gentlemen were declared to have been elected:—William Addison, F.R.C.P., Brighton; Frederick J. Brown, M.D., Rochester; John M. Burton, Esq., Blackheath; James Dulvey, Esq., Brompton, Kent; Frederick F. Giraud, Esq., Faversham; William Hoar, Esq., Maidstone; George Lowdell, Esq., Brighton; Albert Napper, Esq., Crawley; Frederick H. Sankey, Esq., Wingham; Charles Trustram, Esq., Tunbridge Wells.

New Members. The following gentlemen were unanimously elected members of the Association and of the Branch:—Dr. Allfrey, Chislehurst; Dr. Saunders, Gravesend; Dr. Martin, jun., Rochester; Dr. J. V. Bell, Rochester; Dr. Kinnear, Melville Hospital.

Election of Officers. It was proposed by Mr. J. CORDY BURROWS (Brighton), seconded by Mr. PINCHING (Gravesend), supported by Mr. SANKEY (Dover), and carried unanimously—

"That the annual meeting for 1864 be held at Brighton, and that E. L. Ormerod, M.D., be President-elect for the ensuing year."

Messrs. George F. Hodgson (Brighton) and F. Abell Humphry (Brighton) were chosen Vice-Presidents elect for the ensuing year.

On the motion of Mr. T. HECKSTALL SMITH, seconded by Mr. TRUSTRAM, Mr. Peter Martin and C. Holman, M.D. (Reigate) were elected Joint Secretaries.

Donation. It was proposed by Mr. SANKEY (Dover), and seconded by Mr. TRUSTRAM (Tunbridge Wells), and carried—

"That a donation of £10:10 be made to the Medical Benevolent Fund."

Medical Evidence. It was proposed by Mr. T. HECKSTALL SMITH (St. Mary Cray), and seconded by Mr. J. CORDY BURROWS—

"That the members of the South-Eastern Branch have seen with disapprobation much of the medical evidence which has been given in recent trials affecting the character, either moral or professional, of medical practitioners.

"That they consider it the bounden duty of medical men called as witnesses, whilst delivering themselves most fully of the truth as to facts, to speak with friendly caution on all matters not absolutely within their own cognisance; and if called upon to give an opinion based on hearsay or on hypothetical grounds, expressly to state that such an opinion is not to be taken as fact."

The motion was supported by Dr. CARPENTER (Croydon), Mr. PINCHING (Gravesend), and others, and carried unanimously.

Vaccination. Mr. BOTTOMLEY (Croydon) addressed the meeting on the vaccination question. He regretted that in the present day the question was in a state of confusion, disagreement, and uncertainty, which he attributed to the act of Lord Lyttelton. In 1854, he proposed that the Registrar-General should be placed at the head of the organisation for carrying out vaccination; that the fee of the vaccinators should be paid by certificate. He thought that a board, like a Board of Guardians, ought to have nothing whatever to do with the matter; for quarrelling with Boards of Guardians, as to whether the fee to be paid should be 1s. 6d., 2s. 6d., or

more, appeared to him (Mr. Bottomley) to be a complete waste of time. But the act was left in the hands of the Poor-law Commissioners and Boards of Guardians who had to carry out its provisions. From the time of passing the act to the present, there had been no effort made to alter that state of things; and he was inclined to think that now was the time—when the panic arising from recent small-pox had scarcely subsided—for the medical profession, as a body, through the corporate institutions of the country, to put the case plainly and clearly before the Government, and show the necessity of passing an act taking vaccinations out of the hands of the Poor-law Board and the Poor-law Guardians. He proposed—

"That a committee be formed for the purpose of discussing the matter, and that the result of their deliberations be submitted at the next meeting of the South-Eastern Branch."

After some remarks from Mr. Trustram, Dr. Carpenter, and Dr. Sutherland,

Mr. BOTTOMLEY maintained that it was the duty of the medical profession to vaccinate without fee or reward. He never received a penny in his life.

Mr. TRUSTRAM (Tunbridge Wells) seconded Mr. Bottomley's proposal. He advocated the appointment of an impartial inspector of vaccination, whose duty should consist of giving certificates where he found vaccination had been successfully performed.

Dr. CARPENTER (Croydon) was very glad to find that in some points his opinions were identical with those of Mr. Bottomley. He was glad Mr. Bottomley had introduced the question of vaccination to this meeting. The gentlemen present had no doubt seen the observations which had been recently made in the BRITISH MEDICAL JOURNAL, and which had made known to them that there had been a medical gentleman who had not acted in concord with his professional brethren. That question had been ably discussed by their JOURNAL; and Mr. Bottomley's motion had been brought forward in such a manner that they could find no exception to it. He (Dr. Carpenter) only wished Mr. Bottomley had acted in the same manner elsewhere as he had done at that meeting. During the late epidemic in this country, small-pox became prevalent in Croydon, and in the course of twenty weeks twenty-five deaths occurred. Then the question arose, What was the cause of the spread of small-pox? The town was drained perfectly, the water was plentiful and beautiful; then why this epidemic? He answered this question at the Local Board of Health, and said that vaccination was not properly attended to. He said that the fee given to medical officers by the Board of Guardians was not sufficient to enable them to go and search out persons who had not been vaccinated. He said that the medical officer was bound by his contract to vaccinate every person who came to his house for that purpose, the fee being 1s. 6d.; but that he was not bound to go from house to house to find out cases, and that the fee was too small to induce him to do so. A member of the Local Board of Health thereupon moved a resolution that a communication go to the Board of Guardians calling their attention to the spread of small-pox, and expressing a hope that they would take some steps to carry out the Vaccination Act more effectually in the parish, and take into consideration the desirability of increasing the vaccination fees. When the communication from the Board of Health was discussed by the Board of Guardians, Mr. Bottomley attended the meeting, and there made the observations which had appeared in the JOURNAL. There would never have been any quarrelling in this matter had Mr. Bottomley adhered to the views he had expressed at this meeting, and had he hung with the other medical men in Croydon, who were all unanimous as to the terms on which the contracts should be taken. He (Dr. Carpenter) was very pleased to find that Mr. Bottomley had now become

a convert to the opinions they had always held in Croydon; and there was no doubt if the medical men continued to hang together they could defy Boards of Guardians. He had great pleasure in supporting the proposition.

Mr. HECKSTALL SMITH felt much obliged to Dr. Carpenter for the part he had taken in this matter; and, while he was willing to bear testimony to the zeal, intelligence, and activity of Mr. Bottomley to endeavour to give a status to the medical profession in some matters, he (Mr. Smith) could not go with him on that question. It gave him considerable pain to see in the JOURNAL the observations made before the guardians at Croydon by Mr. Bottomley, who advised them to pinch the pocket at the expense of the public health, and to the disparagement of the profession. Mr. Smith, however, hoped all would go smoothly in Croydon, and that Mr. Bottomley would be true to himself, and give reasonable support to the profession, and not stand quietly by and hear a medical officer grossly insulted by guardians.

After some further discussion, the motion was put, and lost by a large majority.

At half-past four, the members adjourned, and visited the Castle and other objects of interest; and at half-past five, sat down to dinner at the Bull Inn. There they were joined by the Mayor of Rochester and the Rev. J. Conway, incumbent of the parish, and a very pleasant evening was spent.

READING BRANCH: ANNUAL MEETING.

The annual general meeting of the Reading Branch was held at the Council Chamber, Reading, on Wednesday, July 1st.

After the retrospective address of the Reading Pathological Society had been delivered by Mr. Marsh, the President, GEORGE POUND, Esq., of Odiham, took the chair, and in an able address reviewed the present position and prospects of the medical profession.

Mr. Pound's address will be found at p. 32.

Officers. I. Harrinson, Esq., of Reading, was elected President; and N. Crisp, Esq., of Swallowfield, representative in the General Council. The Council and Honorary Secretary were reappointed.

Dinner. The members of the Reading Pathological Society and of the Branch afterwards dined together at the George Hotel, and spent a pleasant evening under the presidency of Mr. Pound.

Correspondence.

THE ELECTION OF COUNCILLORS AT THE ROYAL COLLEGE OF SURGEONS.

SIR,—A leading article in the last number of the BRITISH MEDICAL JOURNAL is devoted to denouncing, in very forcible language, the mode of conducting the elections into the Council of the Royal College of Surgeons. For the sake of the peace of mind of those Fellows (if there be any) who may be led by the strength of your rhetoric to fancy that there is really anything "contrary to common sense and fair play", demoralising in its action, and unrighteous in its consequences, in the system on which we vote, I am induced to pen these lines; assuring them that, if we descend to the plain regions of fact, we shall find that it is quite as simple, just, and efficacious as any that has hitherto been devised, and, moreover, precisely the same in principle as that upon which nine-tenths of the elections in this country, whether political, municipal, or social, are conducted.

There are, as you have pointed out, two methods by which the voting at such elections might be carried on:

1. Where, as at present, each elector *may* vote for as many candidates as there are vacancies; 2. Where each elector *must* vote for so many candidates, or not at all. Both systems can be shown, of course, to share in the imperfections incidental to all human institutions; but to suppose that the second is free from the objections which you have so vehemently and persistently urged against the first, is, I conceive, an utter fallacy. These objections amount to two. The first is, that by it "a majority of the votes of the Fellows present is not necessary to carry an election". This is confounding two different subjects. In any such elections there never is, nor has been, any question of absolute majority or minority among the whole number of electors, but simply one of the highest number of votes; otherwise elections would often be impossible, and the elected body would cease to exist, for want of the required but unattainable unanimity among the electors. The second method would do nothing to remedy this supposed evil. Take, for instance, this not improbable example. There are three vacancies to be filled up. Five candidates and two hundred voters come to the poll, giving in all six hundred votes. A. has 180 votes recorded for him; B. has 160; C. has 90; D. 86; and E. 84. According to all rules of common sense, A. B. and C. would be elected; but yet C., having only a *minority* of the whole number of electors voting for him, according to your principle, would not be eligible to serve. Your imaginary Fellow, voting for himself, must surely be rightfully elected, if, in "the favourable and quite possible circumstances" (!), no candidate is put forward who can obtain more than the one vote. He must be the *best* man; if there be no *better*. The vacancy has to be filled up; and the election would not be a whit more in accordance with common sense and fair play, if the seven hundred Fellows present are compelled to record a second vote for a candidate for whom they feel no interest. The case is like maintaining that a man who "walks the course" at an uncontested election cannot be righteously elected, because the whole constituency, not voting *for*, therefore voted *against* him.

Your second objection, that this method encourages "electioneering jockeying and trickery", is not in the least degree more applicable to one system than the other. A "plumper" for a favourite candidate would probably lead to a better result than the inevitable alternative of adding the names of the *least likely* candidates—a most dangerous electioneering game, but one which is sure to come largely into play when voting for as many candidates as there are vacancies is compulsory. I believe that, practically, the result would be precisely the same, whichever system is adopted. The same men would be elected, and there would be the same amount of electioneering tactics. For the eradication of the latter element, nothing but the honourable feeling of the constituency can be depended upon; and the machinery which already exists should, for the very reason of its existence, not be disturbed until it can be proved that a better might be substituted for it.

I am, etc., F.R.C.S.

July 1st, 1863.

THE TREATMENT OF BRONCHITIS.

SIR,—Having recently perused in the JOURNAL a lecture on Capillary Bronchitis, in which the eloquent lecturer at page 554 seems to invite the comments of his professional brethren, as well as the concurrence of his hearers, I shall venture, with all the humility befitting a village apothecary of the old school, to assure him that, although I find no difficulty in concurring with him "that the fate of the poor Italian organ-grinder was sealed when or even before he entered the hospital," because the proverbial abstemiousness of his class, their habitual exposure by day to our (to them)

ungenial climate, half clothed, and their nightly shelter in loathsome dens, are pretty certain in time to reduce their power to resist the attacks of disease to its minimum, and thus to pave the way for speedy dissolution, as in the case related—yet I must protest most emphatically against his conclusion “that the treatment adopted in the case was theoretically correct”. To say that a patient is suffering from acute bronchitis of three days duration is, I presume, equivalent to saying that the lining membrane of the lesser air-passages is to a greater or less extent in a condition of hyperæmia or congestion; that its sensibility is augmented; its secretion diminished or replaced by one preternaturally viscid; and, as a consequence of these morbid changes and possibly others, we find the patient suffering from a most distressing dyspnoea, an incessantly harassing dry cough, a quickened circulation, and all symptoms speaking as plainly as language can that the prompt relief of the patient is the imperative duty of the practitioner. Now let me ask, Were the medicines prescribed calculated to afford this relief? Was the ammonia, of which the ordinary effect is to increase the force and frequency of the pulse, likely to lessen the hyperæmia or the dyspnoea? Was the squill which dries the mucous membrane, or the senega, which both dries and irritates the mucous membrane, likely to alleviate the dry cough which incessantly tormented the patient? What benefit could reasonably be expected from chloric ether, although as a sedative it is found useful in spasmodic asthma, in the non-inflammatory irritable cough of children, and in hysteria when combined with a stimulant? Lastly, although nothing is better fitted than a turpentine liniment to relieve acute pains, commonly of brief duration, in the thorax and abdomen, who would not, where a lasting effect is desired, prefer the old-fashioned blister? And I may add, at the risk of being deemed hypercritical: Where is the patient suffering from acute bronchitis, who would not infinitely prefer pure air to an atmosphere loaded with the vapour of turpentine?

Every practitioner of the old school (and many, doubtless, of the new) is perfectly familiar with the steps usually taken to insure relief in acute bronchitis, when seen early; viz., venesection, or cupping between the shoulders or elsewhere, with the object lessening of hyperæmia and relieving dyspnoea; tartrised antimony in small doses, to quiet the circulation, and to promote easy expectoration; solutions of the neutral citrates, tartrates, or acetates of the alkalies, by way of febrifuge, in accordance with the teachings of experience, confirmed by the theory of Liebig, which is as plausible as any other, although ignored by the late Dr. Golding Bird in his lecture upon the *modus operandi* of acetate of potash in rheumatic fever; blisters, or counterirritation in some other mode; and lastly, after all inflammatory action has subsided and the expectoration is easy and too abundant, we may have recourse to the misnamed expectorants, squill and senega.

The experiment of Valentin quoted by Dr. Salter for that purpose, so far from proving that the abstraction of blood can be of little use in inflammations, has, when rightly appreciated, a precisely contrary tendency; for it shows that the abstraction of blood favours the rapid imbibition into the circulation of the weak solutions of the neutral vegetable salts generally prescribed, and which, as shown by Liebig, by combining with a part of the oxygen inspired, and being thereby converted into carbonates, both directly and indirectly render the blood less stimulating, and induce a condition more favourable to the patient. To conclude; is it not evident that after bloodletting we can, by medicine and an appropriate diet, certainly lessen the proportion which the fibrine bears to the serum of the blood, and by this attenuation lessen the intensity of inflammation when it

exists, and render more rapid and easy the return to health. I am, etc., C. DE CINQ MAISONS.

Whittlesey, Cambridgeshire, June 19th, 1863.

NITRATE OF SILVER.

LETTER FROM JOHN HIGGINBOTTOM, Esq., F.R.S.

SIR,—I think it very important to call the attention of surgeons to the superiority of the ordinary nitrate of silver over the new preparations which have been now some time in use. The new preparation, “Lunar Caustic Points, perfectly tough”, is worthless as an application in surgical cases. It is not nearly so soluble as the old brittle stick of nitrate of silver, and has scarcely any power in checking and subduing inflammation, and useless in the cure of wounds. The same remarks apply to the cake and crystals of the nitrate of silver used for photographic purposes; which, although they may be more chemically pure, are much less efficacious for surgical purposes than the old preparation.

It is a remedy to which I called the attention of medical men thirty-seven years since, in an essay on the *Use of the Nitrate of Silver*; every succeeding year it has maintained its value in my estimation; but I fear that if the new preparations continue to be used, it will undeservedly fall into discredit.

The grounds upon which I have formed my opinions are these. I have used the new preparation for some time, and in cases where, from past experience, I looked forward with a certainty to successful results, I have been much disappointed, and the cause was to me then inexplicable.

To give a case. A medical friend had a severe puncture. I applied the nitrate of silver, with a conviction that he would have no further trouble with it. To my surprise, the application took little or no effect; surrounding inflammation followed; also of the absorbents. Further applications were made with the same nitrate of silver, but the inflammation continued its usual course, keeping my patient several days in bed; and afterwards it very slowly subsided.

Another patient had a severe contused wound on the middle finger of the left hand, from a fall. The nitrate of silver was well applied. I expected it would heal under an adherent eschar. That it did not do so, surprised and disappointed me. The wound remained some weeks in a painful and irritable state, and when at last it healed, it left an irritable induration with swelling. This I treated again and again with the nitrate of silver, without much benefit.

These and other cases I could relate (one especially, a formidable attack of erysipelas on the leg, which formerly I found yield to the application, entirely failed), led me to think there must be something wrong in the preparation of the nitrate of silver; and it occurred to me that the new preparation did not produce so much pain as the old did immediately on its application. I procured some of the old fashioned stick nitrate of silver. The first application on the case above mentioned did more in removing the irritable inflamed swelling in four days than all former applications.

From the experience I have had daily of the use of the nitrate of silver for so many years, I am convinced that no remedy of equal power has been discovered, if properly applied, in subduing external inflammation and healing wounds, although many remedies have been recommended in lieu of it.

In cases of extensive external inflammation, I would use a solution of four scruples of the old fashioned stick of nitrate of silver to four drachms of distilled water; in common cases of inflammation and wounds, the ordinary stick, as particularly directed in my last work, *Additional Observations on the Use of the Nitrate of Silver*.

I am, etc.,

JOHN HIGGINBOTTOM, F.R.S.

Medical News.

APOTHECARIES' HALL. On July 2nd, the following Licentiates were admitted:—

Brend, Alfred, Middlesex Hospital
Harrap, George, Charing Cross Hospital

At the same Court, the following passed the first examination:—

Jeffery, Edward, King's College
Simpson, Spencer Henry, St. Bartholomew's Hospital

APPOINTMENTS.

HUGHES, James S., M.D., appointed Professor of Surgery in the Royal College of Surgeons of Ireland, in the room of J. H. Power, M.D.

HUGHES, Thomas H., M.D., elected House-Surgeon to the Chester General Infirmary.

POOR-LAW MEDICAL SERVICE.

CURTIN, Charles J., M.D., to the Kanturk Dispensary District of the Kanturk Union, co. Cork.

SMART, Francis W., M.D., to the Workhouse and the Ballymahon Dispensary District of the Ballymahon Union, co. Longford.

VARDY, Robert, Esq., to the Rothbury Eastern District of the Rothbury Union, Northumberland.

WATERS, William, L.K.Q.C.P., to the Carbury Dispensary District of the Edenderry Union, King's County.

INDIAN ARMY.

FORBES, Deputy Inspector-General John, retired on full-pay, to have the honorary rank of Inspector-General of Hospitals.

LINTON, Deputy Inspector-General Cornelius C., retired on full-pay, to have the honorary rank of Inspector-General of Hospitals.

MOREHEAD, Surgeon-Major Charles, retired on full-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

ROYAL NAVY.

BICKFORD, Thomas L., Esq., Assistant-Surgeon, to the *Fiegar*.

HUMPHRY, Robert, Esq., Assistant-Surgeon, to the *Meander*.

WALSH, J. C., Esq., Surgeon, to the *Pembroke*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

BOTT, T. B., M.D., to be Surgeon 8th Lancashire R.V.

PARSONS, D. W., Esq., to be Surgeon 64th Lancashire R.V.

RYAN, W. B., M.D., to be Assistant-Surgeon South Middlesex R.V.

WINTERBOTHAM, W. L., M.B., to be Assistant-Surgeon 26th Somersetshire R.V.

BIRTHS.

HARRIES. On July 7th, at Shrewsbury, the wife of *John D. Harries, Esq., of a son.

SANSOM. On July 2nd, at 8, Angell Terrace, Islington, the wife of *A. Ernest Sansom, Esq., of a son.

DEATHS.

BELL. On June 27th, in Edinburgh, Lucy Anne, widow of Charles W. Bell, M.D.

BORRETT. On July 1st, at Castleton, Sherborne, aged 4 months, Joseph Turner, infant son of James Borrett, M.D.

CLARK, John, Esq., Surgeon, at Weldon, Northamptonshire, aged 77, on July 1.

HYDE, Sidney, Esq., Surgeon, aged 23, on July 3.

MACINTYRE. On July 1st, at Brighton, Mary W., widow of William MacIntyre, M.D., late of Harley Street.

SPENCER, William, Esq., late Surgeon 5th Bengal Light Cavalry, at Bath, aged 68, on July 3.

SUMMERS. On July 3rd, at Gillingham, Chatham, Anna, wife of John Summers, M.D., Surgeon-Major Royal Engineers.

VACCINATION (SCOTLAND) BILL. This bill was read a third time in the House of Commons on Monday last.

VACCINATION (SCOTLAND) BILL. Dr. Alexander Wood and Dr. Burt, of Edinburgh, last week had an interview with Sir George Grey and the Lord Advocate, on the subject of the Vaccination (Scotland) Bill.

NAVAL MEDICAL SUPPLEMENTAL FUND. The amendments in the Naval Medical Supplemental Fund Society Winding-up Act, 1861, Amendment Bill were agreed to, and the bill was read a third time and passed, in the House of Lords, on Monday last.

ROYAL COLLEGE OF SURGEONS. The annual election of officers of this institution took place on the 9th inst., on which occasion Mr. F. C. Skey, of St. Bartholomew's Hospital, was elected President, and Messrs. Hodgson and Wormald Vice-Presidents for the ensuing year. At this meeting of the Council, Messrs. Lane, Busk, and Hancock, the recently elected Councillors, were sworn-in and took their seats.

ENORMOUS TUMOURS IN A COW. Mr. Reynolds, M.R.C.V.S. (Mansfield,) relates a case in the *Veterinarian* of the existence in a cow of three enormous tumours, weighing collectively upwards of twenty stone.

SOUTHAMPTON MEDICAL SOCIETY. The annual *réunion* of this society took place on Thursday week; on which occasion the members, to the number of sixty-five, sat down to a cold collation in that part of the ruins of Netley Abbey known as the Abbot's Lodgings. Dr. Bullar, president of the society, occupied the chair. Previously to this, the members assembled at the Victoria Hospital, over which they were conducted by Inspector-General Dr. Anderson, Colonel Wilbraham, Dr. McLean, Professors Longmore, Parkes, Aitken, and other officers.

DEATH FROM THE STINGS OF BEES. Two cases of death from the stings of bees have just occurred in France. At Pousthomi (Aveyron) a child three years of age, while alone in a garden, having approached too near a hive, was attacked by the bees and so severely stung as to expire shortly after. The concierge of Fort Belin at Salins (Jura), while occupied two days back in hiving a swarm of bees which had approached his residence, was also so much stung on the hands that he died within an hour after. Remedies were applied, but without avail.

THE HUNTER MEMORIAL. The Committee of the American Medical Association on the Hunter memorial reported that the sum of 357 dollars had been raised, in one dollar subscriptions, towards the Hunter fund, a portion of which had been forwarded to London. The smallness of the contribution was imputed mainly to the fact that the monument would stand on British soil, and the indifference felt by England about the present national trial had checked enthusiasm. The report was contained in a letter from Dr. Bowditch, which was received and placed on file. It was also decided that the account be closed, and the balance forwarded to England. (*American Medical Times*.)

ST. BARTHOLOMEW'S HOSPITAL. On the 2nd inst., at a meeting of the Common Council, the subject of the election of Mr. Cubitt, the late Lord Mayor, as President of St. Bartholomew's Hospital, was brought under consideration. At present, as for some time past, a fierce quarrel exists between the members of the corporation who are governors of the hospital on the one hand, and the donation governors on the other, as to the class from which the governing body at large shall elect their president, and the more interest attaches to the question from a belief that it affects all the royal hospitals of the city of London, richly endowed as they are, and not that of St. Bartholomew alone. (*Times*.)

CALOMEL FOR THE ARMY. The Committee of the American Medical Association, appointed to make a report upon the recent order of the Surgeon-General, prohibiting the use of mercurials and tartarised antimony by the army surgical corps, made a majority report through Dr. Lawson, of Cincinnati, and an entirely antagonistic minority report by Dr. Woodworth, of Indiana. The former strongly favoured the use of these remedial agents in the army, and the latter as strongly discountenanced their use there. Each report was backed up by resolutions rigidly endorsing the language of the report. After an animated discussion, the motion was adjourned. (*American Medical Times*.)

TESTIMONIAL TO MR. SPENCER WELLS. On the 1st inst., a very handsome silver candelabrum, valued at £114, was presented to Mr. Spencer Wells at a meeting attended by a considerable number of the contributors to the testimonial. The following address, written by Dr. Conolly, was read:—"The friends who have the pleasure to present the accompanying testimonial to you are influenced not only by sincere personal regard, but by a desire to express their estimation of your long-continued services in the editorship of the *Medical Times and Gazette*. They are strongly impressed with a sense of the importance of the duties of an editor of a medical journal, and of the influence of the periodical press on the medical profession in general. The judicious and impartial selection of facts and observations, from whatever honourable quarter proceeding, the liberal appreciation of the literary efforts of medical writers, the direction of the public mind on questions interesting in regard to the public health or in relation to medical jurisprudence, and the promotion of the general interests of the medical profession, and of good and kind feelings among its members, are among the objects requiring the constant and vigilant attention of an editor, and their performance demands high qualifications of intellect, and a disposition to promote whatever is true and whatever is useful. His duty scarcely less requires a courageous determination to discountenance whatever is mean, and pretentious, and valueless. We are convinced that views of this character have animated you throughout your editorial labours; and it affords us much gratification thus to record the expression of our respect, and to express our continued good wishes for your professional success and your happiness." Mr. Spencer Wells, in reply, said that when he heard, soon after his retirement from the editorship of the *Medical Times and Gazette*, that some of his friends wished to present him with some testimonial of their regard, he was naturally very much gratified, but he expressed his strong desire that the testimonial should be in no respect a public one. He knew that the practice of presenting public testimonials to private persons had become absurdly common during the last few years. He thought that expressions of public gratitude should be reserved for great public benefactors; but he also felt that if gentlemen who had been associated with him as contributors to the journal which he had edited for more than seven years were kind enough to present him with some permanent record of their regard, he might accept their good-will offering, not only without impropriety, but with pride and great satisfaction. And when he found that one hundred and ten gentlemen, having among them men holding the highest rank in the profession, had contributed to this testimonial, without the publication of a single advertisement, but simply on receiving from one or two of his friends an intimation that there was an opportunity of joining in it if they wished to do so—he felt that such a testimonial from such men was indeed to be prized and handed down to his children as a most honourable heirloom. The value of the gift was greatly increased by the address which accompanied it; and the value of the address was very greatly increased by the fact that it was written by one so much loved and revered by his brethren as his kind friend Dr. Conolly. Mr. Wells also expressed the hope that this would not be the last testimonial to a medical editor. Few who had not tried had any idea of the amount of labour and anxiety involved in the literary management of a weekly journal; yet there was no labour so generally ill-rewarded, or so often followed by the reverse of reward. If some such tokens of approval were a little more frequent there would be more encouragement for men of ability and high character to undertake the serious responsibilities and anxious cares of journalism. The testimonial is a massive candelabrum of solid silver, and on the base is the following inscription, also from the pen of Dr. Conolly:

—"Presented to Thomas Spencer Wells, F.R.C.S., by one hundred and ten contributors and subscribers to the *Medical Times and Gazette*, on his retirement from the editorship, 1862, as a testimony of their estimation of his services to medical science, and of his honourable character."

ROYAL COLLEGE OF SURGEONS. The annual election of Fellows into the Council of this institution took place on the 2nd instant, and at no time since the charter was granted to the College, empowering the Fellows to elect from among their own body representatives for seats in the Council, has there been so much interest excited as was then exhibited. For some weeks past the medical journals have been suggesting to the constituents the propriety of infusing a little new blood into the Council, and of breaking through the usual routine plan of re-electing the retiring candidates; hence the appearance in such large numbers of provincial and metropolitan Fellows as were assembled in the noble library of the College to elect three councillors in the vacancies occasioned by the retirement in the prescribed order of Mr. Cesar Henry Hawkins, Sergeant-Surgeon to Her Majesty, and Mr. Thomas Tatum, Surgeon to St. George's Hospital, and the resignation of Mr. William Coulson. To fill the chair of the last named gentleman, and in opposition to the reelection of the former, the following gentlemen offered themselves—viz., Messrs. S. A. Lane, Surgeon to St. Mary's Hospital; G. Busk, an ex-Professor of the College, and Surgeon to the Dreadnought Hospital Ship; T. B. Curling, Surgeon to the London Hospital; and H. Hancock, Surgeon to the Charing-Cross Hospital. The President, Mr. Luke, accompanied by the Vice-Presidents, Messrs. Skey and Hodgson, the Mace-bearer, and other officials of the College, entered the library about two o'clock, when the first named functionary shortly addressed the assembled Fellows, pointing out the object of the meeting, and calling upon the Secretary to read those portions of the charter and bye-laws relating to elections into the Council. This having been done, the President invited the Fellows to commence the voting, which was by ballot, and conducted in the following manner. Each elector was provided with a list of the candidates, from which he removed the names of those for whom he did not vote, taking care not to leave more than three; the paper thus corrected was deposited in a large box provided for that purpose, in which the President and Vice-Presidents had previously deposited their voting papers. At the conclusion of this part of the proceedings scrutineers were appointed to take down the votes, when the Chairman announced that the choice of the Fellows had fallen upon Messrs. Lane (who polled 199 votes), Busk (169 votes), and Hancock (153 votes.) In the evening the Fellows dined at the Albion Tavern, under the presidency of Mr. Turner, of Manchester, who was surrounded by some of the most distinguished provincial and metropolitan Fellows; among the former were Dr. Wiblin, of Southampton; Messrs. Southam, Wilson, and Hutchinson, of Manchester; Sankey and Ottaway, of Dover; Jackson, of Sheffield; Smith, of Leeds; Harrison, of Chester; Cardell, of Salisbury; Crabb, of Poole; Carden, of Worcester; and Garstang, of Clitheroe. Among the metropolitan Fellows were Sir Rutherford Alcock, Her Majesty's Minister at Japan; Sir John Fisher; Messrs. Toynbee, Hancock, Hird, Luke, President, and Hodgson, Vice-President of the Royal College of Surgeons, Adams, Moore, Paul, Shaw, etc. Mr. Arnott, a late President of the Royal College of Surgeons, has consented to take the chair next year. Before separating, a cordial vote of thanks was offered to Mr. Callender, of St. Bartholomew's Hospital, the honorary secretary, for his indefatigable exertions in promoting these interesting reunions of the Fellows of the Royal College of Surgeons of England.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.

TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.

WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.

SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY. Ethnological Society.

THURSDAY. Zoological Society.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—JULY 4, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys.. 955 Girls.. 942	1937 1187
Average of corresponding weeks 1853-62.....		1728 1142
Barometer:		
Highest (Sat.) 30.117; lowest (Sun.) 29.784; mean, 29.973.		
Thermometer:		
Highest in sun—extremes (Wed.) 111 degs.; (Fri.) 96.6 degs.		
In shade—highest (Fri.) 74.2 degs.; lowest (Wed.) 45.5 degs.		
Mean—59.4 degrees; difference from mean of 43 yrs.—2 degs.		
Range—during week, 28.7 degrees; mean daily, 22.3 degrees.		
Mean humidity of air (saturation=100), 70.		
Mean direction of wind, W.S.W.—Rain in inches, 0.00.		

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

THERAPEUTICAL INQUIRY. No. III. OIL OF MALE-FERN IN TAPEWORM.—Dr. Fleming has received schedules from:—Dr. C. R. Bree, Colchester; Dr. W. Anderson, Birmingham; W. J. Harris, Esq., Worthing; Dr. Charles Barham, Truro; William Sankey, Esq., Dover; Dr. Arthur Ransome, Manchester; John Cornbill, Esq., Birmingham; John R. Humphreys, Esq., Shrewsbury; A. G. Osborn, Esq., Northampton; J. Kent Spender, Esq., Bath. Temple Row, Birmingham, July 2nd, 1863.

PHYSICIANS' FEES.—SIR: In reference to the correspondence between Dr. Vose of Liverpool and the executors of the late Mr. Grant, animadverted on in your last number, I feel called on to state:—

1. That I knew nothing whatever of this case and correspondence, till a printed copy of the latter reached me a few days ago by post.

2. That the introduction of my name into that correspondence has been not only without my authority but without my knowledge.

3. That the "tariff" to which I alluded in my private correspondence with Sir Thomas Gladstone, in 1852, had reference to visits moderately "distant" from town, and would not apply to such special services as those of Dr. Vose, in the case now in question.

I am, etc., JAMES MILLER.

29, Charlotte Square, Edinburgh, July 6th, 1863.

[Professor Miller's statement is fully confirmed by other correspondence which we have received from Edinburgh. We are assured that the tariff of fees which Sir T. Gladstone stated in his correspondence with Dr. Vose to have been given him by Mr. Miller of Edinburgh, as the established medical fees for journeys in Scotland, is not the tariff accepted by the physicians and surgeons of Edinburgh. Sir T. Gladstone made an egregious blunder in reference to the fee of Dr. Latham; and, as it appears, he has also made a similar blunder in reference to the Scotch scale of fees. EDITOR.]

SIR,—The fee paid to Professor Miller by Sir T. Gladstone is not regarded here as the proper fee of a consultant of the highest standing for a country visit. It is undeniable that the fee he got for his visit to Fasque was ridiculously small, and can only be accounted for by the delicacy that he and almost every one similarly circumstanced must frequently have felt in positively stating the amount—and there can be no doubt that on the occasion referred to by Sir Thomas Gladstone (even on Sir Thomas's own showing), he must have been taken very sharply at his word. And, surely, the Professor's name must have been used on this occasion without his sanction having been previously obtained or the circumstances of the case fully explained. At all events, from ample knowledge and some personal experience, I am justified in saying that I know no one here who, with any pretensions to position, would not (except for benevolent reasons) regard £30 for the greater part of two days absence from Edinburgh as a very insulting honorarium.

There can be no doubt that, in the case of a distant country visit, there ought not to be any fixed fee. Every man should be allowed to name his own estimate; and if the patient's friends reckon it too high, they can decline his services. If they have not made the requisite previous inquiry, Dr. Watson's view is the correct one—they should pay freely and fully what is asked.

It is undeniable that most physicians in considerable practice would rather not leave home, and generally sacrifice much when they do; and it is too much to expect that when they do, they are to be paid in a ratio not much above their domestic receipts.

It is quite refreshing to see how actively and energetically you have taken up the cause of professional fraternity, and how entirely your brother journalists have joined with you on this occasion. Dr. Vose's fee may have been either too high or too low; as to that people may differ. But there can be no doubt or question among medical brethren that the various offers of the trustees were unbecomingly him to accept; and we should be all grateful to him for rather surrendering all claim to remuneration than his right as an independent physician to insist on what he considered his due.

I am, etc.,

F.R.C.P.E.

Edinburgh, July 6th, 1863.

COMMUNICATIONS have been received from:—Mr. BENJAMIN STARR; Dr. FLEMING; Dr. LATHAM; Dr. W. P. STIFF; Mr. S. W. FEARN; Dr. J. E. PITT; Dr. COPEMAN; Dr. DURRANT; Dr. HYDE SALTER; Mr. F. MARTIN; Mr. T. W. CROSSE; Dr. RANKING; Mr. W. EDDOWES; Dr. BREE; Dr. H. GOODE; Mr. W. ADAMS; Mr. J. Z. LAURENCE; F.R.C.S.; Dr. H. HIGGINBOTTOM; Mr. GEORGE POUND; Mr. MILLER; Mr. J. D. HARRIES; F.R.C.P.E.; COMMON SENSE; Mr. C. H. ROPER; Mr. J. W. BAKER; Mr. C. P. COLLINS; and R. W.

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The Queen's Hospital, Birmingham.

HAM.—ELECTION OF SURGEON.—A SPECIAL GENERAL MEETING of the Governors of this Charity will be held in the Board Room at this Hospital, on TUESDAY, the 28th day of July next, at Twelve o'clock at Noon, for the purpose of ELECTING a SURGEON, Mr. SANDS Cox's period of office having now expired.

Candidates are required to forward their Testimonials, under cover, to the Secretary, at the Hospital, on or before Tuesday, the 21st July.

DAVID MALINS, Jun., Secretary.

Board Room, June 19th, 1863.

The Queen's Hospital, Birmingham.

HAM.—ELECTION OF PHYSICIAN.—A SPECIAL GENERAL MEETING of the Governors of the Queen's Hospital will be held in the Board Room of the Hospital, on Tuesday, the 28th day of July next, at Twelve o'clock at noon, for the purpose of ELECTING a PHYSICIAN to fill the Vacancy caused by the resignation of Dr. Maule Sutton.

Candidates are required to forward their Qualifications and Testimonials, under cover, to the Secretary, at the Hospital, on or before Tuesday, the 21st of July.

DAVID MALINS, Jun., Secretary.

Board Room, June 19, 1863.

COPY OF BYE LAW.

No Gentleman shall be eligible to the office of Physician or Assistant-Physician who has not taken a Degree in Medicine at Oxford, Cambridge, or Dublin, or the Doctorate in Medicine at London or Edinburgh, or who is not Fellow of the Royal College of Physicians of England, or Fellow of King and Queen's College of Physicians, Ireland, or Fellow of the Royal College of Physicians, Edinburgh.

Bath Mineral Water Hospital.

—The Situation of RESIDENT APOTHECARY having become Vacant by the resignation of Mr. HENRY H. PARRY, the Committee will proceed to fill up the Vacancy on Thursday, the 6th of August.

Candidates must have Diplomas of the Apothecaries' Company and College of Surgeons, and are requested to send Testimonials of their professional abilities and moral character (under cover) to the Registrar of the Hospital, before Twelve o'clock on Thursday, the 20th of July.

The Salary is £100 per Annum, with Board and Apartments in the Hospital.

BENJAMIN STARR, Registrar.

July 6th, 1863.

Salop Infirmary.—To the Pupils

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Royal Medical Benevolent Col-

LEGE, EPSOM.—The Council have the pleasure to announce that FOUNDER'S DAY will be celebrated at the College, Epsom, on Wednesday, the 22nd of July inst. Divine Service will commence at 1.15, and the Speeches, etc., at 2.30.

No one will be admitted without a ticket. Governors of the College, and Parents of Scholars, can obtain tickets by application to either the Rev. the Head Master, at the College; or to the Secretary, at the Office in Soho Square.

By order of the Council.

ROBERT FREEMAN, Secretary.

Office, 37, Soho Square, London, July 8th, 1863.

A Lecture

ON THE

ACUTE NECROSIS OF GROWING BONES.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN.

BY

THOMAS SMITH, F.R.C.S.,

ASSISTANT-SURGEON TO THE HOSPITAL.

I HAVE chosen for the subject of my lecture to-day a disease, with the ordinary progress and consequences of which you are all sufficiently familiar in the full-grown adult, but which in children and growing adults presents certain peculiarities, which I cannot but think worthy of your attention.

The acute necrosis of young children is the disease which, perhaps, beyond all others, has most impressed me as deserving of more notice than it has hitherto met with; and that on account of its frequency, the serious consequences it produces, and the want of a definite or detailed account of it in the surgical treatises of the day. The most complete—and, so far as I know, the only—history of this affection is to be found in Mr. Holmes's article on the Diseases of the Bones, in the third volume of his *System of Surgery*.

As most of you are aware, the increase of the body in height is mainly dependent upon the growth of the bones of the lower limb and of the bodies of the vertebræ. This growth of the femur and tibia in a longitudinal direction is due to the continual increase and synchronous ossification of the layer of cartilage separating the epiphyses from the diaphyses of these bones; while the spinal column adds to its length by the growth and ossification of the cartilage lying between the bony body of the vertebra and the interarticular fibro-cartilage, and subsequently by the formation of a secondary centre of ossification at the upper and lower rim of the body of each vertebra.

Of course, the increasing depth of the pelvis and the growth of the tarsal bones add somewhat to the general stature; but I repeat that the chief additions to the length of the human body are made at the epiphysal lines of the bones of the lower limb and at those of the bodies of the vertebræ.

The growth of the spinal column in length may be roughly but strikingly illustrated by comparing its increase with that of the spinal cord, and noticing the degree of obliquity of the roots of the lower lumbar nerves. The point at which each nerve leaves the spinal cord indicates the part of the cord which was originally opposite the foramen, out of which the nerve leaves the spinal canal; and the distance between the point of exit from the cord and from the canal shows how much the spinal column has outgrown the spinal cord in that region. (See Humphry, *On the Human Skeleton*.) At the third month of fetal life the spinal cord reached as low as the last bone of the sacrum; in the adult, it extends only as low as the second lumbar vertebra. But this growth of the spinal column, great as it is, is far exceeded by that of the femur;

which of all the long bones is the first to show an epiphysis or secondary centre of ossification. Indeed, at birth, the only epiphyses which are formed among the long bones of the body are those at the lower end of the femur and at the upper end of the tibia; and, in accordance with the general rule with regard to epiphyses, that those first formed are the last to disappear, this lower epiphysis of the femur is the last to ossify to its corresponding shaft—remaining separate until about the twentieth to the twenty-fifth year.

From tables constructed by Dr. Humphry, to be found in his work *On Osteology*, it appears that the relative lengths of the spinal column and the femur at birth may be stated as 7 for the spine to 4.3 for the femur; while, when growth is just complete, the spine stands at 18.5 to 15.8 for the femur. Thus, while from birth to manhood the spine has grown a little more than its own length and a half, the femur is three and a half times as long as it was at birth.

From the same source, we can gather that at birth the femur forms 22.94 per cent., or nearly a quarter of the whole length of the body; in adult life, it forms 27.51 per cent. of the same; while the spine at birth is 31.48 per cent., in adult age 34.15 per cent. of the whole body.

To further illustrate the great activity of growth in the epiphyses of the femur, let me remind you that the growth of the spinal column is carried on at twenty-four different ossific centres; that is, at the central bony nucleus in each vertebra, while the longitudinal increase of the femur takes place but at two points, the upper and lower epiphysal lines.

I have ventured to occupy your time with these details, as I believe their consideration may help to explain the frequency of necrosis and other allied affections in certain bones of children and growing adults. It is in these parts of the osseous system where are found separate centres of vitality and growth, that disease is most likely to occur; and the more active the growth at any one point, the more prone to disease will that point be. In the long bones, or those parts of them covered by periosteum; and where the compact structure predominates, or where they are exposed to changes of temperature and external violence—the disease of the bone will generally be sudden in its access and rapid in its progress, and will quickly produce those changes which we sum up under the term necrosis; while, if the bone be chiefly composed of cancellous tissue and surrounded by soft parts; if it be but little invested with periosteum; and be, from its position, protected from external violence and changes of temperature—the disease will be gradual in its onset, insidious in its progress, and will more slowly produce that gradual destruction of the osseous tissue termed caries.

To quote a few examples in illustration of my meaning, I would point to the bodies of the vertebræ, which, from their position and connection with surrounding parts, will, if my statement be true, be liable to caries, and but little exposed to necrosis. In the last two years, I have collected, from my out-patients' books, ninety cases of caries of the bodies of the vertebræ, and all well marked instances of the disease. I have never seen, and probably you have never seen, a case of necrosis of the same bones.

Again, it is very uncommon to meet with an instance of acute necrosis of the head of the femur—though I have known the occurrence of such an affection—and this is as one would expect from the position and connections of this part of the bone; while, during the last two years, fifty cases have come to this out-patients' room, of hip-joint disease, where there was evidence of a carious condition of the head of the bone. On the other hand, the shaft and lower end of the femur are commonly enough attacked by necrosis. Again, I would remind you of the extreme infrequency of necrosis of the bones of the tarsus and carpus; of their liability to caries; of the liability of the phalanges of both fingers and toes to necrosis; of their general exemption from caries.

This difference in the liability of bones to be attacked by one of the two diseases, necrosis or caries, seems to depend (I repeat)—

1. On the composition of the bone, whether the cancellous or compact structure predominate;
2. On the position of the bone, whether it be protected from external violence and changes of temperature, or not;
3. On the presence and extent of, or the absence of, a fibrous periosteal investment.

To both necrosis and caries, the bones of children and growing adults are particularly liable; and I believe this liability is due to the increased vascularity and sensibility of these parts during their period of growth and development; rendering them highly resentful of external injuries, and prone to serious disturbances in their circulation, when exposed to extremes or sudden variations in the external temperature.

If any one will take the trouble to examine the membrane covering one of the long bones of a child, in its soft, vascular, and almost succulent texture, and in the ease with which it is separable from the bone, he will scarcely recognise its identity with the dense, dry, and tightly clinging, fibrous periosteum of a full-grown adult, from which it differs in texture almost as much as does a mucous from a serous membrane. During the last years of growth, and the early period of manhood, when growth has ceased, the soft, vascular, and rapidly ossifying structure forming the deepest layer of the periosteum, disappears; the membrane itself becomes thinner, from ossification of its deeper layers; it is denser, and more tightly stretched over the subjacent bone, with which its vascular connections are now less intimate, the blood-vessels having diminished both in number and size.

It is to this vascularity of the deeper periosteal layer in young persons that I would direct your attention, since it is this that peculiarly predisposes them to subperiosteal effusions from slight external causes—a condition, as I hope to show you, always imperilling the vitality of the bone, and not unattended with danger to the individual.

[To be continued.]

A CAPITAL OPENING FOR A PHYSICIAN. At 2 P.M. this morning, a noted physician of Carlisle reached Harrisburgh, Pennsylvania, in a buggy, having left that place two hours previously under the impression that the rebels were within one mile of him. He abandoned his house, furniture, and property of all description. (Telegram.)

Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; LECTURER ON
PHYSIOLOGY AND PATHOLOGY AT CHARING CROSS
HOSPITAL MEDICAL SCHOOL; AND ASSISTANT-
PHYSICIAN TO THE HOSPITAL.

LECTURE VII.—ON PLEURISY. (Concluded.)

Case II. Case III. The Pain of Pleurisy. The Diagnostic Bearings of Pain in the Side. The Nature of Pleuritic Pain; its Non-dependence on Friction; its Non-coincidence with the Inflammation; is probably Reflex. The Diagnosis of Pulmonary from Costal Pleurisy. Important Part which the Inflammatory Results play. The Pathology of Catarrhal Pleurisy. Prognosis. The Persistence of Pleuritic Friction. What determines the diverse Results of Pleurisy? Treatment.

CASE II. Sarah Russell, aged 19, presented herself among the out-patients at Charing Cross Hospital, May 2nd, complaining of severe stitch in her side, just under the right breast. It is much aggravated by attempting to take a deep breath; indeed, the pain is so great on trying to make a full inspiration that it is almost impossible to do so. She cannot lie on her right side. She dates the pain from a severe cold she caught on the night of the illuminations celebrating the Prince of Wales's marriage. This cold was attended with shivering, pains in the limbs, feverishness, and cough. A few days later the pain in the side was superadded, and has not left her since. She has now had it for three weeks.

On examining the chest, a strong pleuritic friction was heard at the seat of the pain, at the termination both of inspiration and expiration, especially the former. In every other respect the sounds of the chest were natural. There was no fever; the patient was pale and weak, with a depressed and rather anxious expression. I ordered perfect rest, the infraction of a sedative liniment, and internally opium, chloric ether, and quinine. I advised this patient to come into the hospital, but she refused.

A week afterwards she presented herself again, and reported that the right side was quite well, but that the pain had moved to the left side. Bearing in mind the physical evidence of the organic nature of the cause of the pain, I felt rather sceptical of this migration. On applying my stethoscope to the original seat of the sound and pain I found that all trace of rubbing was gone. But what was my surprise, on applying the stethoscope to the opposite side, to find an exactly similar friction-sound in an exactly corresponding situation? So that while the pleurisy, with its results, had been vanishing on one side it had been developing itself on the opposite. The two points, right and left, where the friction was heard, were exactly symmetrical; its disappearance on the right side was complete—not a trace was left; whilst on the left it was even louder than it had been on the right. The patient appeared to have caught no fresh cold; in her general condition she was better; and, had it not been for the pain, would have considered herself well, except that she was weak. She still refused to come into the hospital, and I prescribed the same treatment as I had done before. Since that time I have not seen her.

CASE III. Thomas Wingall, aged 17, a tall, well-made youth, with very little aspect of illness about him, a but-

cher by trade, and in his occupation much exposed to the weather; temperate.

Three weeks ago he caught cold; had headache, and vomited, coughed, and spat. Five days after he was attacked with pain under his right scapula, passing along the axilla to under the right breast, and aggravated by taking a deep breath and coughing, but not by movements of the arm or body. He was obliged by the pain to lie on the opposite side, although the right side was that on which he was accustomed to lie. The pain was the most severe the first two days; since that it has gradually become less severe, especially in the day. It is worst in the morning after he wakes until after he is up; it then gets better throughout the day, and comes on again in the evening, particularly on going to bed. He went on in this way for a fortnight, and then came to me, May 15th, among the out-patients at the hospital.

On examining his chest, I immediately found loud rubbing-sound in the upper part of the right mammary region, the most intense above and to the inner side of the right nipple, but extending thence about two inches upwards and inwards over the inner extremities and cartilages of the second, third, and fourth ribs. Sound audible at the termination both of inspiration and expiration, especially inspiration; the intensity of the sound proportionate to the length and depth of the respiratory act. The fremitus at the termination of each inspiration (especially if deep) distinctly perceptible by the hand. He eats, drinks, and sleeps perfectly well, and has done so since the first day or two of the attack, and he has not laid by from his work for a single day. Pulse 80; respiration 18. The treatment consisted of local sedative, combined with iodine, and internally of iodide of potassium, quinine, and iron. As much rest as possible was enjoined.

May 20th. The pain is nearly gone; what little there remains now is chiefly felt beneath the scapula. Friction as loud as ever; its maximum intensity at the junction of the bone and cartilage of the third rib.

You will observe that in all three cases the one circumstance that brought the patient to the hospital was pain in the side; and pain of a peculiar character—severe, circumscribed, stabbing, and greatly aggravated by inspiration. In Franklin's case, as we have seen, this pain was of the most violent kind, resembling the plunges of neuralgia more than anything else. Now such a pain as this almost always accompanies pleurisy; it is rare to find pleurisy without it; and hence when such a pain is present pleurisy is the thing one always thinks of and looks out for. But pain in the side may arise from fifty causes besides pleurisy; and since some of these are very trifling, while pleurisy is often a grave affection, the diagnosis of lateral pain frequently becomes a very momentous as well as interesting question. How then, in any given case, can we ascertain if pain in the side is due to pleurisy or not? I will endeavour to show you as clearly as I possibly can. But I must admit that the diagnosis is sometimes difficult.

If physical signs show the anatomical results of pleurisy to be present, then pleurisy clearly exists or has existed, and the pain in the side is probably due to it.

But supposing there are no physical signs of pleurisy, is the pain on that account non-pleuritic? Certainly not. I believe it perfectly possible for pleurisy to be present and yet not reveal itself by any physical signs whatever; either because the inflammation is not intense enough to give rise to anatomical changes sufficiently marked to reveal themselves by physical signs, or because the stage

of the inflammation is too early and the time has not yet arrived for the development of those changes. In such a case as this how are we to determine whether the pain points to pleurisy or not?

If there are other signs of lung mischief such as is often associated with pleurisy—as, for example, pneumonia, or tubercle, or cavity—then the pain is probably pleuritic.

If pressure *between* the ribs produces the pain, while pressure *on* the ribs does *not*, if inspiration is the great aggravator of the pain, if there is cough, if there is fever and much constitutional disturbance, and if the pain is circumscribed and a little without or below the nipple, then it is probably pleuritic, although there may be an entire absence of all physical signs of lung-disease.

If the pain is very severe and the pulse is unaffected, the pain is *certainly* (I think I may say) not pleuritic.

If moderate pressure *over* a rib, as well as *between* the ribs, produces the pain, the pain is not pleuritic.

If the movement of certain muscles which could not affect the pleura produces the pain, especially if there are other evidences of rheumatism, the pain is not pleuritic. Only yesterday we had two cases in which the diagnosis turned upon this point; contraction of the *latissimus dorsi*, that could not possibly have been appreciated by the pleura, gave rise to the pain in both cases. The verdict was rheumatism.

With regard to the influence that the evidence of rheumatism has upon the diagnosis, it must be admitted that it cuts both ways. For while rheumatism is one of the commonest causes of lateral pain simulating pleurisy, it is also, in its acute and febrile form, a very common cause of pleurisy itself; so that while the evidence of its presence might suggest the non-pleuritic nature of the pain, on the other hand it would afford an explanation of, and in some cases almost constitute a presumptive proof of, its true pleuritic character.

Doubtless, the case the most difficult of solution is the alternative between pleurisy and rheumatism of the intercostals. I have more than once been puzzled with it myself, and I have seen other and able men puzzled with it. There is in both cases the same superficial breathing, the same "stab" on attempting to take a full inspiration, the same lateral *decubitus* on the unaffected side, the same tenderness in the intercostal spaces. The rules of diagnosis that I have just mentioned to you will generally solve the mystery, but the most careful scrutiny may leave the question undecided.

The nature of this pain is no doubt the same as that of all other inflammatory hyperæsthesias, and, like them, the principal thing that aggravates it is mechanical disturbance; hence the intolerance of pressure and of stretching, hence the superficial breathing and the *decubitus* on the sound side. I do not believe that the friction of the roughened surfaces has anything to do with the pain, for two reasons: first, because you may have, as shown in the case of Wingall, pleuritic rubbing continuing after the pain has ceased, and when nothing is felt by the patient beyond a sense of the friction; and secondly, because the pain may be severe where the existence of effusion in considerable quantity prevents the contact of the two pleural surfaces. It has been said

that as soon as effusion takes place the pain ceases. This is not true. In the case of Franklin the pain was of the most severe kind that I think I have ever witnessed in any case of pleurisy, while the pleural cavity was full of fluid—so full as to preclude all possibility of friction.

Does the seat of the pain coincide with the seat of the inflammation? As far as always occurring on the same side goes, I think it does. But I doubt if it does further. Certainly the seat of pain does not coincide with the seat of the greatest friction-sound. Thus, in the case of the lad Wingall, the maximum friction was about the cartilage of the third rib, where there was no pain; while the chief pain was at the inferior angle of the scapula, where there was no rubbing. Moreover, there is a suspicious constancy about the seat of pleuritic pain, which cannot be explained by a similar constancy in the seat of the inflammation. We know from *post mortem* evidence that all parts of the pleura are liable to inflammation, while the seat of pleuritic pain is not liable to equal variety. For the seat of pleurisy there is no rule; for the seat of pleuritic pain there is a tolerably well marked rule:—beneath the nipple, at the inferior angle of the scapula, on the acromion, and beneath the false ribs, are its characteristic situations. Moreover, some of these situations are beyond the limits of the pleura, as on the acromion, and in the interval between the last rib and the crest of the ilium, where the chief pain in Franklin's case was felt. Moreover, the seat of pain may be covered with the finger when *post mortem* appearances show that the implication of the pleura has been almost universal. From all these considerations, I am inclined to think that pleuritic pain, as far as its distribution is concerned, is chiefly reflex; and that the constancy of its situation represents some law of reflex distribution, analogous to that which makes bronchial pain sternal, and colic pain umbilical, whatever may be the exact seat of the source of irritation.

I have often asked myself the question, in cases of pleurisy, whether both costal and pulmonary pleurae were affected, or only one, and which; and if there were any means of diagnosing this point. Is it possible to answer this question? I think, to a certain extent, it is. I think one surface may be affected without the other; and certainly both may be affected at once. I think, if there is pleuritic effusion, and pressure between the ribs at the seat of pain increases the pain, that the costal pleura is affected. I think, on the other hand, that if, under such circumstances, there is no pain on pressure, the costal pleura is not affected. I think that if pneumonia coexists with the signs of pleurisy the implication of the pulmonary pleura is certain. I think that in all cases of pleuritic rubbing, both surfaces are certainly affected; perhaps one primarily, but *both* ultimately. In cases of pleuro-pneumonia in which there is friction-sound, the pulmonary pleura is probably affected first; and when that has been roughened, a similar state on the opposite surface of the costal pleura is set up by the chafing produced by the already roughened lung-surface. In pleuritic rubbing produced by traumatic injury of the thoracic parietes, the same events probably take place in a reversed order.

Observe the important part which the nature of the anatomical result of the inflammation plays in these cases. In the cases of Russell and Wingall,

when the febrile stage of the cold passed off nothing remained but the inconvenience and annoyance of the stitch in the side. But Franklin's catarrhal attack left him not only with the pain, but with one lung instead of two, with the incubus of a pleura-full of fluid upon his mediastinum and heart, and with all the circulatory and respiratory derangement and distress that must result from such a state of things. We see from this how, when hydrothorax is developed, it comes to constitute the substantive disease;—the pathology is lost, the morbid anatomy is everything.

What is the nature of the pleurisy in these cases? Some, no doubt, would say they are idiopathic. But I think, without adopting Serjeant Shee's definition of the word *idiopathic*,* I may show you that it would not be fair so to call them. It is quite clear that in all the cases the pleurisy was due to cold. Is this fact inconsistent with the general proposition with which I commenced my lecture—that *serous inflammations preeminently point to states of blood-poisoning*? I think not. I think, on the contrary, that everything both in the etiology and clinical history of catarrh shows it to be a veritable toxæmia.—a state of blood-contamination by a special *materies morbi*; and therefore pleurisy from catarrh is but an example of a serous inflammation from a blood-poisoning. I do not see how it is possible to give any other reading to the phenomena of catarrh:—rigors, lassitude, headache, subjective pains in back and limbs, accelerated and enfeebled heart's action, loss of appetite, thirst—all the symptoms, in fact, of fevers of blood-origin; secondly, certain local inflammations of glandular or quasi-glandular parts; and thirdly, all this supervening on the suppression of the function of an eliminating surface which, taken in the aggregate, constitutes one of the largest glands of the body. And pleurisy is not the only serous inflammation that catarrh will produce; I am quite satisfied that I have seen, on three or four occasions, catarrhal peri- and endo-carditis. And, if you will not accuse me of reasoning in a circle, I will say that, if I wanted a clinching and convincing proof of catarrhal fever being a true blood-poison state, I should find it in its tendency to give rise to serous inflammations.

The *Prognosis* in all these cases is entirely favourable. About the cases of the girl and lad, in which there was no effusion, there has been from first to last peculiarly little besides the local condition. That local condition has never been of a serious character. In the case of the girl, the pleura of the left side has merely to resume the state that the right pleura has already resumed, and which a few days has sufficed for it to resume, for her to be well. In the boy, as far as one can judge, the smoothing of the membrane will be a slower process. The man's case, as we have seen, is rapidly improving day by day—each day the physical signs mark a subsidence in the effusion. It is now only a week and a day since I first listened to the chest and found, in the right half of it, apparently *serum, et præterea nihil*; and now there is but a small quantity in the most dependent part of the pleural cavity, and the lung has all but reoccupied its old situation. A few steps

* In the trial of Palmer for the murder of Cook, Serjeant Shee, in reply to a question from the bench as to what was the meaning of the constantly recurring word "*idiopathic*," said that it was a word employed by doctors to signify "that which was not understood".

more in the same direction, and every drop of serum will be gone.

As far as physical signs go, I will venture to predict that the two last that will be lost will be the percussion-dulness and the diminished vocal fremitus; the percussion-dulness last of all. It is wonderful how these two signs hang about after pleuritic effusion. Long after natural respiratory murmur has been reestablished, long after every trace of ægophony has disappeared, we shall probably find traces of these two signs. I venture to predict this on the strength of what I have observed in other cases. What is the cause of this lingering percussion-dulness and imperfectly re-established vocal fremitus I find it very difficult to guess. It is certainly not dependent on lung-compression or unabsorbed effusion. The only thing that I can imagine is, that the film of gelatinous fibrine-clot, to which I have already referred, so often found lining the cavity of the chest and covering the surface of lung in pleuritic hydrothorax, may, by intervening between the lung and the chest-wall, act as a *dampener*, and in the one case stop the conduction of the percussion-stroke from without, and in the other the conduction of the bronchial voice-vibrations from within.

How soon the girl and the young man will lose their friction-sound it is impossible to say; nor does it matter. Pleuritic rubbing is one of the most variable and uncertain of physical signs as regards its duration, and one of the least important as regards its prognostic indications. You may just catch it for a day, or it may persist for weeks—yes, for months; and if it does so persist, a man is not a whit the worse for it, if he has recovered his health in every other respect. A man in whom all the functions of life are perfectly performed is not the less a sound man because you hear in his side a sound you do not hear in another's. I remember a patient in King's College Hospital, some years ago, who was kept in the hospital several weeks after he was in other respects well, in consequence of strong pleuritic sound and fremitus in his left pectoralis region. The man was a strong sturdy fellow, and made himself so generally useful that he became a sort of supernumerary servant of the hospital. We used to amuse ourselves, I remember, by making him strip, and feel with the palms of our hands on the pectoralis this friction-thrill each time he breathed. At last the physicians were ashamed of keeping him in any longer; and he left the hospital with not only the sound, but the fremitus, as strong as ever. In Wingall's case, the friction will very likely last equally long. In the girl's case, however, I should expect that the rubbing would soon disappear, merely because it has so quickly disappeared on the opposite side.

There is one curious question that these cases suggest:—What is the determining cause that gives such different anatomical results in different cases of one and the same disease? Why in one of these cases should there have been effusion without roughening, and in the two others roughening without effusion? Shall we find the explanation of this difference in the condition of the blood? Shall we find it in any diathetic peculiarity? That it is not to be found in the nature of the exciting cause seems pretty evident, because in these three cases the exciting cause was one and the same.

I must not dismiss you without saying just one word about *Treatment*.

You will have observed that in all the cases my treatment was very simple. I aimed at three or four definite and intelligible objects with a view of placing the parts under the conditions most favourable for inducing and maintaining the natural reparative processes. These conditions in my opinion are:

To give functional and physical rest;

To allay pain by direct sedation;

To keep up vital power.

To give functional and physical rest, because the part is crippled, and to work a crippled part is to keep it crippled; it is to keep it at a constant disadvantage; whereas it ought to be placed at an advantage, for something is to take place in it which is not taking place in the sound part, namely a reparative process over and above its ordinary nutrition and function.

To allay pain, because pain and healthy nutritional action are incompatible—as long as the one subsists the other will be suspended; and this, no doubt, from the baneful and disturbing influence which pain exercises on the nervous superintendence of the circulation of the part.

To keep up vital power, because the higher the standard at which this is kept, the more energetic will be the processes leading back to a condition of health, whether of deposition, or absorption, or whatever they may be.

In the cases of Russell and Wingall, in which there was no effusion, but merely the pain and friction, I endeavoured to secure these conditions by forbidding exertion, by the infraction of sedatives, and by the administration of quinine, etc. And even with the man Franklin I had but little more to do than this. I neither bled him, nor leached him, nor blistered him, nor purged him, nor antimonialised him, nor mercurialised, nor "ised" him in any other way, except did my best to *sthenise* him. His pain was much greater than that in the other cases, so I gave him in addition frequent doses of sedative internally. As far as we can judge from results the counter-irritation of the turpentine fomentations was of the greatest service to him.

By some persons a blister is always applied in cases of pleuritic effusion, and with a view, I believe, of removing the fluid by withdrawing it into the blisters which are raised; but if we look at the quantity contained in the chest, and the quantity which the blister "draws," this action is seen to be clearly impossible. The only other way in which it can act is as a counter-irritant, and I think in this way it is inferior either to mustard or turpentine, and has the disadvantage of not being able to be repeated.

With a view of promoting absorption some physicians have advocated bleeding in cases of pleuritic effusion. There can be no doubt that the abstraction of blood increases the rapidity of absorption, and, therefore, that this practice stands on rational theoretical grounds; but there are strong practical objections to it; it certainly in its general results tends in exactly the opposite direction to that which the rest of our therapeutics is directed to; and in the opinion of some, and among them the late Dr. Todd, has a direct tendency to increase the effusion, by impoverishing the blood and rendering it more watery and prone to passive transudation. I have heard Dr. Todd say myself that he thought, if in any

given case of pleurisy you wanted to produce effusion, nothing would be so likely to do so as to bleed your patient. At any rate, if we could, by reducing the contents of the blood-vessels, generate an endosmotic current into them, and so favour absorption without impoverishing the blood, it would be vastly better. I am not sure that this might not be done by giving occasional smart doses of hydragogue cathartics; in any future case of hydrothorax, I should feel very much disposed to try it; carefully keeping up my patient at the same time in every way, by tonic, stimulant, and food, to antagonise the lowering effect of the catharsis.

The only part of my treatment about which I have any doubt is about the value of the iodine. In any case in which one wants to promote absorption, one gives iodine, as a matter of course, externally, internally, and both; and one cannot doubt that locally its effects in this way are sometimes very striking. But if you were to ask me if, in any given case of hydrothorax, I had any tangible and irrefragable proof that the fluid had disappeared the sooner for its administration, I should say I had not.

Transactions of Branches.

EAST ANGLIAN BRANCH.

PRESIDENT'S ADDRESS.

By EDWARD COPEMAN, M.D., Physician to the Norfolk and Norwich Hospital.

[Delivered at Yarmouth, June 26, 1863.]

GENTLEMEN,—In entering upon the office you have done me the honour to confer upon me (that of President of the Eastern Branch of the British Medical Association), I will not detain you with needless remarks about my own unfitness; but leaving the well beaten track of personal apology, I will enter at once upon what I conceive to be my duty in the position in which you have placed me. Let me, however, in the first place, offer you my sincere thanks for the confidence which has led you to entrust me with the conduct of the affairs of this Branch for the ensuing year, and still more for the friendly feeling which I am fully aware has influenced you in giving me your valuable support and countenance on the present occasion.

Gentlemen, if we desire to see our noble profession holding the position it so well deserves, occupying a high rank in the social as well as in the moral and scientific world, and enjoying the good opinion and respect of society in general, we must encourage friendship and even affection amongst ourselves; discourage all animosity and ungenerous opposition; uphold as a body all worthy efforts to increase the respectability and usefulness of our calling, and never on any pretence whatever enter into a combination to oppress the less fortunate, or wound the feelings of the more humble; or, worst of all, increase the burden of a professional brother who may be labouring under some grievous imputation without, perhaps, any just or real grounds. At first sight, we might think such a remark superfluous, and aimed against an imaginary evil; but is it really so? Have we not seen in several instances how readily some of our body have lent their aid in the prosecution of a professional brother, when there has not been a tittle of reliable evidence against him, and where a prosecution could not have been entered upon with the slightest chance of success had it not been for the help afforded by the opinions of medical men? It is surely but a poor com-

pensation to the injured feelings of a sensitive man to be told, when such a trial is over, that he has the sympathy of the profession, and that his expenses will be paid by subscription! Gentlemen, he has a right to the sympathy of the profession *beforehand*, and no medical man ought to allow himself to be placed in a witness-box under such circumstances, without the strongest conviction in his own mind, based upon facts, that the suspected party is really guilty of the charges brought against him. And even then, if he feel it his duty to give evidence in a court, that evidence should not be founded upon, or guided by, opinion, but solely upon facts and the conclusions to which those facts direct him.

No society, I believe, has ever encouraged friendship and sociability amongst its members more than that which we are met here today to commemorate; and I cannot help thinking that it is yet fated to be the instrument of very much benefit to our profession. The British Medical Association, formerly the Provincial Association, is coeval with my own professional life, being founded in 1832, the year when I completed my professional education by passing the College of Surgeons. In 1835, a medical society was formed to embrace the Eastern Counties, of which the late Mr. Cross was the founder and honorary secretary; and the inaugural meeting was held at Bury. But in the following year, this was dissolved as a separate society; and, soon after the fourth anniversary meeting of the Provincial Association at Manchester in 1836, its members joined the Parent Society as the Eastern Branch, setting an example of forming Branches which has since been followed in numerous instances, and even by the metropolis itself. I was a very early member of this Eastern Branch, and find, on referring to the JOURNAL, that at a meeting held at Bury, in September 1840, a paper of mine was read "On the impropriety of Blood-letting in certain Apoplectic and Paralytic Seizures." I do not pretend to have been the first to place before the profession the impropriety of indiscriminate bleeding in such cases; but at all events, it was at that time a comparatively new doctrine in this country, and I have lived long enough to see it entertained and adopted almost universally by the profession.

The period which dates from the commencement of this Association has been one of great progress in the medical world. The stethoscope had not been long in use, and was understood only by the few in the early days of this society; but now it is indispensable to the practitioner, and almost answers the purpose of second sight. The chemical examination of the urine was at that time but little practised; and much of the early success of Dr. Jephson of Leamington was due, I believe, to the point he made of examining his patients' urine, by which he produced a strong impression on their minds that he was adopting a novel and probably beneficial mode of distinguishing the nature of their diseases. What has it come to now? Why, it has become a most important means of diagnosis; it has led to most interesting discoveries as to the nature of various diseases; and, no doubt, has also contributed to the improvement of medical treatment.

The history of this Association also embraces much of the history of the microscope. When I began practice, it was scarcely ever employed by medical men, but now every student possesses a microscope; and many practitioners have found it an important aid in diagnosis, to say nothing of the interest it has added to the study of the minute anatomy of tissues. Then, as to literature, what a vast amount of valuable information has been placed before us within the same period of time! The first part of Copland's Dictionary was published in 1833, and the learned author has lived to complete that gigantic work of his own hands, and still lives to practise the profession he has so much honoured by his industry and talent. A Sydenham Society has lived and died,

leaving behind it an excellent collection of ancient and foreign literature; and there is now a junior Society bearing the same honoured name, a New Sydenham Society, which is actively engaged in supplying us, at but a slight expense, with a variety of useful and interesting medical works. Journalism has also made great strides; but sometimes "the more haste the less speed"; and I take leave here to remark that in our journals of the present day there is too much of speculative, and too little of practical, reasoning; too much theory and too little practice; too much written by young aspirants for fame, and too little by those who, from their years and experience, might render essential service in promoting the practical improvement of our art.

What may we not say of that most wonderful discovery of late years, the use of anæsthetics for the relief of pain? Has not the use of chloroform materially altered the practice of surgeons in many important points? Could joints have been resected, bent limbs straightened, prolonged and difficult operations performed with the same immunity from danger to the patient, and with equal steadiness and comfort to the surgeon, without the assistance of chloroform? When we consider that all these and many other difficulties can, by its use, be overcome without the infliction of pain, how can we sufficiently estimate the possession of such an invaluable aid to the practice of our art?

We are now so familiar with the beneficial effects of chloroform that we are apt to lose sight of the immense value of the discovery, and the great debt we owe to the discoverer for such a blessing. But unhappily, no great good is, generally speaking, unaccompanied with a certain amount of evil, and chloroform has in too many instances proved fatal; but this has arisen from the abuse rather than from the use of this powerful agent; and I venture to assert, though not without fear and trembling lest some casualty should yet arise, that if the precautions adopted at our hospital were generally followed, the same immunity from loss of life would prevail elsewhere as in that excellent institution, where up to the present time no death has occurred as a direct result of the use of chloroform, although for years scarcely any operation has been performed without it. The cause of this exemption I believe to be, the true appreciation of the signs of danger and their speedy removal. The chief danger I take to be from suffocation, anæsthesia of the tongue and other muscles in the guttural region, by which the glottis may be mechanically closed, and death caused by asphyxia. The mode employed at the Norfolk and Norwich Hospital consists in administering the chloroform on a piece of linen folded into a conical form, held at first at a short distance from the mouth, and then laid over the mouth and nose. If stertor, the first sign of danger, arise, the cone is raised a little to admit air; and should any threatening appearances of impeded respiration shew themselves, the tongue is at once drawn forward with a pair of forceps to open the glottis, at the same time that artificial respiration is practised by alternate pressure on the chest. Such, in brief, are the means which have hitherto succeeded in protecting us from any fatal casualty from chloroform.

Time would fail me were I to attempt to notice half the improvements that have taken place in medical and surgical appliances since the birth of this Association; many of them are so familiar to us that we can scarcely believe they are of so recent an origin; but when we really consider how much has been done in a comparatively short period, what may we not hope to witness, even in the lifetime of some of us, in the way of advancement in medical science, and of additional aids to the relief of suffering humanity? I cannot, however, omit a cursory notice of another art of recent date, almost of the other day; I allude to photography, an art which has contributed so largely to the happiness of families, bringing before them with such truth and distinctness the lineaments of those dear to, but distant from them, or preserving to their visual sense the correct features and expression of those who have for ever departed from them. This beautiful discovery has been brought to bear upon professional subjects with success; and our excellent house-surgeon Mr. Williams could show you numerous likenesses of tumours before and after operation, taken at a cost of only sixpence each, which are so true to nature as to be of essential use in illustrating cases, and completing the history of operations.

I am unwilling to trespass further upon your time, or deprive you any longer of the gratification we shall experience from the papers promised by some of our friends present. Allow me but time for a few concluding remarks, and I shall then have much pleasure in proceeding to the more important business of our meeting. Whilst contemplating the vast strides that have been made of late years in the attainment of medical knowledge, as regards minute anatomy, pathology, and diagnosis, I have been strongly impressed with the idea that we have not made the same progress in the treatment of disease. Chemistry has amply supplied us with an elegant assortment of therapeutical means, but I doubt whether a corresponding improvement in treatment has been the result. Indeed, I would venture to say that, in many instances, views of the treatment of disease have become unsettled; and that, in consequence of new theories, much doubt has been thrown upon previously recognised and successful modes of treatment. The fact is, that really practical men appear seldom to have the time, or they have not the inclination, to publish the results of their experience; and, unless they do, we may be driven about by every wind of doctrine; and be led almost to doubt the evidence of our own senses by the crude statements of the inexperienced. If it were possible for practical men to meet oftener and communicate to each other their several experiences and practical observations, the most valuable information of all would be distributed amongst us; and such a society as the present offers the finest opportunity for such a work. It has already fully established the social principle as a powerful means of disseminating knowledge. I earnestly recommend you all to cherish this social principle; for it not only promotes knowledge, but, in the words of the founder of our Association, "it is the principle which promotes peace; it is the principle of true honour; it is the principle of the Christian religion."

MIDLAND BRANCH.

PRESIDENT'S ADDRESS.

By HENRY GOODE, M.B., Derby.

[Delivered at Derby, July 2nd, 1863.]

IN occupying the position in which you have done me the honour to place me, I must beg, in thanking you, at the same time to express my desire, that I may be found worthy of that honour by upholding the dignity and credit of this Association, to which we belong, during the term of office.

My own concern for the welfare of the society I have shown by having performed now for eleven years the duties of secretary; and to this in part, I believe, is due my present position, and in part also it is due to the circumstance that, though now in practice as a surgeon, I have been known to most as a physician; and we in this place have sought for a president by turns from the two classes of practitioners.

The principles on which this Association is founded are such as to ensure a beneficial action among its members, by promoting that harmony and gentlemanly feeling which ought to prevail among the members of a liberal profession; and if it now numbers many, we may

hope to see it number yet more to partake in its social meetings; while, at the same time, we must look to this Association for the carrying forward such measures of improvement as may affect us as a body politic. We are now settling down to the working of those measures of medical reform obtained in great part by the machinery for cooperation of our society; and have to share in the general disappointment of the medical profession on discovering the futility for the prevention of illegal practice of the penal clauses of the Act obtained with so much trouble. This is the only portion of the Act calculated to produce any immediate apparent effect; and it has failed unless we again put the shoulder to the wheel for an united effort for a revision of the Act. Important improvements in some of the clauses have been brought before the Medical Council; and it will be our duty to fortify the hands of the promoters by the expression of an opinion upon them. Doubtless, some opposition may be expected in the attempt to tighten the cords of restriction, since the genius of this country is to be jealous of the liberty of the subject and intolerant of constraint. It rests with us to show that these measures are not for the benefit of a class; but for the good of the public at large.

The improvement in the mental culture of the medical body begun by the Act of 1815 may fairly be expected to progress under the present enactments, and this, at any rate, is a subject of congratulation; and with this improvement we may reasonably anticipate that the distinction between the two classes of physicians and surgeons, already disappearing, will be yet more completely swept away. Apparently alive to this fact, the College of Physicians of London has entered into an honourable rivalry with the College of Surgeons and the Apothecaries' Company by creating a license suitable to the times, and by instituting examinations in surgery in addition to pure medicine. Future years will develop the changes arising from this step; for, doubtless, it will much modify the present relations of things in the medical world.

The older universities of Oxford and Cambridge, though they have been stirred up to inaugurate changes of importance, have as yet made but small progress towards taking up the position they ought to occupy in holding the keys of scientific knowledge. How grudgingly they yielded to pressure from without in the establishment of the tripos for subjects of natural science, is evidenced by the withholding their emoluments from such as achieve distinction in these branches of learning; and until this is changed, we must still expect these ancient seats of learning to lag behind their younger sister university in London, whose institutions are founded on more modern requirements.

Of the universities in the sister kingdoms we must now entertain the same respect that we do for those of our own, since we find the minor schools conforming equally to the required standards; and of the greater we can wish no better than that they may yet retain their European reputation. The study of medicine, with the adjunct sciences, has always furnished the chief investigators after truth, since its dealing is with the real and present more than the distant and doubtful; and hence it leads to boldness and precision of thought, and loosens the trammels of prejudice. We cannot, therefore, but regret that the older English universities should be reluctant to allow a fair share to these pursuits in the distribution of their rewards.

Our business lies more with the social than the political relations of society; we deal with individuals rather than communities; and hence each is apt to regard his own interests from a narrow point of view; and from a want of union, we are incapable of claiming from the public those rights and that moral influence which ought to attach to our body. It is only on the occasion of meetings like this, that the differences of doctors can

be said to be laid aside to allow us to take a review of our political aspects.

I will now pass on to one or two topics of public interest which have agitated the medical world during the past year, giving rise to questions not yet solved; viz., gratuitous medical services, and the proper method of rendering scientific evidence in courts of law.

That a helping hand should be lent to a fellow creature in distress is the maxim on which is based the whole of our art, and to this we are bound by our rules of life. But though this is the case, obviously and prominently, with the medical profession, the same also holds with all the other trades and professions which minister to the wants of civilised life, though in a less manifest degree; and there seems no reason why a fair return for services rendered should be less justly due in one case than in the other; but yet the policy of our profession has been to give largely its services to the public, partly from motives of benevolence, but partly also from expectations of an ultimate return; and here a zeal too indiscriminate is apt to run beyond the bounds of strict necessity, and needs a watchful eye to reticet to the truly needy the assistance rendered. This is an evil incidental to all public charities; but perhaps of less weight in a small provincial, than in a large metropolitan hospital. In the metropolis the principle has been recognised, that some requital should be made to certain of the medical staff of the public charities in return for their services. A further extension of this principle rests with the profession themselves, if they should deem it desirable to claim it by an expression of public opinion.

With this question is also involved the subject of Poor-law remuneration, which is kept at its minimum, in great degree, by the underbidding through professional rivalry. Our own estimation of the value of medical services affects also the public estimation of them in various circumstances of a private and public nature.

The topic of medical evidence, or rather, we should say, of scientific evidence, is one deserving of careful reflection, to rescue science from the undignified and unsatisfactory position she is wont to assume from the present mode of arraying scientific witnesses on each side of a disputed legal question, whereby each witness is constrained to answer only certain limited and one-sided questions, and an apparent discord is produced on subjects, which, taken in the whole, admit of but one solution. It is difficult for the coolest and best trained mind to enter the witness-box without the feeling of a partizan, and more especially so on being specially brought forward to back some view of a case propounded by the man of law. This is too frequently done; witnesses appear to contradict one another, and the truths of science are made to appear but fallacies. It has been suggested that the institution of a court of experts for certain cases would remove this difficulty and give more certain results; and where this method is feasible, we should have every confidence in expecting purer truths to emanate from a dispassionate scientific inquiry, than from an exhibition of the adroitness of opposing counsel, the result of the present system. It is only by the reiteration of opinion that such subjects can receive improvement; and for that reason I have now brought them before your notice. There are also other topics of medical polity; but I now pass them by to make some allusion to the progressive growth of practical medicine.

With the general growth of all branches of learning, it were impossible that medicine should remain stationary; and we find accordingly that various procedures have been improved in medicine and surgery. The laws of consanguineous unions have been a subject of discussion. The treatment of lowering diseases has been further carried out, and more especially we may point to

Bennett's observations on the employment of stimulants in pneumonia. The female generative organs have become the subject of bolder surgical operations than formerly, and with success in this country, so as to induce the French surgeons to imitate ours in operations for ovariectomy and vesico-vaginal fistula. Improvements have been carried out in the operative surgery of the eye, as in iridectomy, and Mr. Bowman's operation for fistula lacrymalis; nor must we forget to notice several ingenious contrivances for the better inspection of some of the outlets of the body. Many labourers, as usual, have devoted their attention to syphilis, and in connection with vaccination some observations on this disease have been of much importance. In pharmacy, a few new drugs have been introduced to notice; in part plants from the continent of America, and in part organic products obtained from coal and other sources by labourers in organic chemistry. Each year presents to our attention novelties of this nature; still one cannot fail to be struck how, with very few exceptions, we in the main still fall back upon the drugs which were the main reliance also of the physicians of ancient Greece and Rome, such as opium, aloes, colocyath, and so forth. But though we point to an experience of many centuries in the employment of these drugs, of their mode of action we have still much to elucidate. This matter is now engaging the attention of our Association, and we may hope it will be carried on. In such an inquiry, the search for specifics must yield to that for general principles; for it must be admitted that the more we search, the fewer specifics do we find.

These are subjects of general interest. There are local topics on which I wish to say a few brief words; and, first, in regard to medical pathology as it is cultivated in this county. We who live apart from the schools of medicine, and the emulation kept alive by them, are apt to allow our opportunities to go to waste, and to direct our industry into other channels than pursuits of this nature; hence the public, from habit, become averse to allow the necessary examinations to be made in cases of doubtful disease. That this prejudice prevails to a considerable extent in this district, is a fact which most of our medical neighbours can verify, as an obstacle to the completion of that experience which should be for the public good in the advancement of medical skill. It is for medical men to show that such researches should not be held by the enlightened mind to interfere with a sacred regard for the dead, nor with those holy instincts which we should wish to prevail.

Of topical diseases I might speak, but the limits of this address forbid me to enter upon a subject so extensive; and though I should have liked to take some notice of goitre, the local Derbyshire disease, I feel I must now give place to those who have kindly promised us papers; and more especially so since some of the topics I have alluded to seem to me to require the expression of your opinions.

In closing these few observations, I must congratulate the members on the healthy condition of the Association, and the better character of the JOURNAL since it has been conducted by its present editor. New names have been added to the list of members, and some have gone since the last annual meeting; among them we find the name of one—the most illustrious in our profession—the late president of the Royal Society, Sir Benjamin Brodie, who has departed full of years and honours; and nearer home one esteemed and useful associate is missing, the patriarch of the profession in this place, Mr. Jones, who was always willing to work for the public good, and always with intentions for the best.

I must now beg your kind indulgence for the imperfect nature of these remarks; but, such as they are, I offer them for the expression of your opinions.

YORKSHIRE BRANCH.

LARGE PROSTATIC CALCULUS EXTRACTED DURING LIFE.

By SAMUEL HEY, Esq., Leeds.

[Communicated June 18th, 1863.]

THE weight of the calculus was eleven ounces, two drachms, and two scruples. Its surface was smooth and polished, and beautifully marked, like a "fortification agate". It consisted chiefly of lithic acid, with a small mulberry nucleus.

The patient, aged 40, a cloth-weaver at Gomersal, was admitted into the Leeds General Infirmary on April 13th, 1863. He had suffered from symptoms of stone in the bladder for twenty years; but, although the catheter had been frequently introduced, the calculus had not been discovered, probably because the instrument used was too short. His complaint was supposed to be enlargement of the prostate, as the stone formed a large protuberance in the rectum. On introducing a large silver catheter, it was at once struck. His health was so shattered, and his sufferings were so great, that an operation was evidently his only chance. This was performed on April 19th. On opening the membranous part of the urethra, the stone was felt by the finger. Great difficulty was experienced in the extraction, partly from its size, but chiefly from the hardness and polish of the surface, which caused the forceps to slip. Ultimately it was broken by the "lion" forceps into three pieces, and was then removed without difficulty. The patient died exhausted on the 24th—viz., on the fifth day after the operation.

Some doubt was expressed whether so large a stone could be contained within the prostate, altogether exterior to the bladder; but the *post mortem* examination proved that this was the case. The cavity of the bladder was small, and its coats were greatly thickened; and it communicated with the pouch containing the stone by a narrow passage. This pouch was formed by the inserting membrane of the prostate, the substance of that gland having been attenuated, or absorbed by constant pressure. This membrane was found to be in a sloughy state; its vitality being probably so low as not to admit of any reparative action.

CALCULUS REMOVED FROM THE URETHRA OF A FEMALE BY VAGINAL SECTION.

By J. WARD, Esq., Penistone; and H. JACKSON, Esq., Sheffield,

[Communicated June 18th, 1863.]

MR. H. JACKSON exhibited a calculus weighing five drachms and two scruples, which had been removed from the urethra of a female by vaginal section; and by the kindness of Mr. Ward of Penistone, in whose practice it occurred, gave the following particulars.

The patient was the mother of ten or twelve children. In her last confinement but one, some difficulty was experienced in the passage of the child; but she recovered well, and nothing more was thought about it. In about eighteen months she was again confined, and suffered from convulsions. Mr. Ward's assistant, who attended her, detected the existence of a hard body immediately in advance of the fetal head, which considerably retarded delivery. The labour, however, terminated; and, on seeing the patient the following day, Mr. Ward wished to explore the bladder; but this was objected to.

Some months elapsed, and he was then consulted; the patient being in a very distressing state. The urine was charged with phosphates to a great extent. There was great difficulty of micturition, and the urine passed in dribbles, excoriating the external parts; and she was suffering from great constitutional irritation.

Three days afterwards, Mr. Overend saw her in consultation; and an incision was made through the vagina,

and the calculus removed. A catheter was introduced into the bladder, but caused so much distress that, with great reluctance, it was removed.

No sutures were used. Pledgets of dry lint were frequently introduced into the vagina; and the wound thoroughly healed, so that in about three weeks the normal power of the bladder was completely restored.

Reviews and Notices.

PARTURITION WITHOUT PAIN OR LOSS OF CONSCIOUSNESS. By JAMES TOWNLEY, Member of the Royal College of Physicians of Edinburgh, etc. Third Edition. Pp. 63. London: 1863.

If Dr. TOWNLEY had, before writing his book, spent a few hours in studying the observations of obstetric authorities who have written on the use of anæsthetics in labour, he would surely not have hastened to announce that, until he appeared on the scene, the pains of parturient women were assuaged only by the use of chloroform to such an extent as to "produce loss of consciousness also," and to be "not unattended with danger." He is apparently unaware that, for instance, Dr. Churchill, of Dublin, at least as far back as 1860, wrote:—

"It is quite possible to afford immense relief, to 'render the pains quite bearable,' as a patient of mine observed, by a dose which does not procure sleep or impair the mental condition of the patient, and which all our experience would show is absolutely free from danger." (*Theory and Practice of Midwifery*. Fourth Edition: 1860.)

However, having the idea—a very proper one—that chloroform ought to be given in labour so as to merely relieve the pains without interfering with the patient's consciousness, Dr. Townley has, "after considerable reflection on the subject," devised a plan by which the desired end can be attained. This plan consists in the use of a new inhaler, and of an aromatised compound of chloroform and alcohol, to be inhaled by the lying-in woman.

After some flourish about the inhaler and aromatised chloroform, Dr. Townley describes the mode of administration. The patient, holding the inhaler in the right hand,

"Is directed to take a full inspiration, and then to apply the inhaler to her mouth and nose. She is then to breathe rapidly for six, eight, or more inspirations. . . . The inhaler should then be removed, and immediately one or two full deep chest-inspirations taken. This will be found sufficient to relieve all pain, and there will be no loss of consciousness."

Could not Dr. Townley have obtained this result by a simple modification in the manner of giving chloroform? But in that case, perhaps, the discovery would have been hardly worth a book; while the inhaler and the anodyne mixture give it importance and dignity.

The author's notions of the physiological action of chloroform, administered by his process, are not of the clearest. He says that, in his plan, the "rapidly repeated but interrupted impressions made on the nervous system produce the anodyne without the anæsthetic effect—before, indeed, the mass of the blood has become affected." Will he kindly explain, at some convenient opportunity, for the benefit of the profession, how the chloroform which

is inhaled from his "anodyne mixture" reaches and acts on the seat of pain, without entering the circulation?

From science we turn to ethics; and, while we cannot compliment Dr. Townley on the clearness of his scientific ideas, his notions of professional propriety are even more obscure. We allude to his publication of a series of laudatory letters from patients whom he has attended; which letters occupy forty-one out of the sixty-three pages of the book. It is due to him to say, that he does not give the names of the writers; but still the tone of the letters—however right it may be that a patient should express gratitude to his or her doctor, and however pleasing such expression of gratitude may be to the feelings of the practitioner—is such, that their publication can have no other object than that of showing, in the words of one of the writers, how impossible it is

"To speak sufficiently in praise of your marvellous process, or to offer you thanks at all in proportion to the great blessing you have been the means of bestowing on suffering women."

Of illustrating the almost more than grateful feelings with which Dr. Townley's patients regard him, when one speaks of him as having been "directed by a gracious God to a means of mitigating such severe suffering"; and another writes:

"The earnest desire of both myself and husband is, that by God's blessing your valuable life may long be spared, and that you may enjoy the happiness and privilege of being, to a constantly increasing number of ladies, the means of proving that what has hitherto been considered an impossibility can be done; namely, the birth of a child without any pain or any loss of consciousness to the mother through the whole of her labour."

Verily, Dr. Townley is fortunate in having fallen among a class of patients with highly refined and noble feelings. Did any other obstetrician—even Simpson himself—ever receive such a mass of outpourings of gratitude as are contained in the sixteen letters which Dr. Townley has published? Happy patients and happy accoucheur! But was it important to medical science, or to medical ethics, that these kindly expressions of patient to doctor should be published to the view of the world?

FRENCH PUBLIC VOTES FOR SCIENTIFIC PURPOSES. The following are a few of the annual votes of the French government for the support of science, etc.:—£35,000 as a help towards superior instruction, which includes the faculties of theology, law, medicine, science, and letters, superior schools of pharmacy, laboratories, etc., in different parts of the country. The Institute of France, with its five academies, the Académie Française, Académie des Inscriptions et Belles Lettres, Académie des Sciences, Académie des Beaux-Arts, Académie des Sciences Morales et Politiques, costs £25,000. The College of France, with its twenty eight chairs, costs £10,000. The Museum of Natural History, with sixteen professors, travelling naturalists, and the cost of gardens, menageries, etc., £22,000; the Imperial Academy of Medicine, £1,700. There are also about £1,600 as donations to learned societies; £600 as subscription to the *Journal des Savants*; £5,600 as subscriptions to scientific and literary works; £8,000 as annuities, or temporary help, to learned men and men of letters; £3,200 towards voyages and scientific missions, and £5,000 for the publication of documents of national history.

British Medical Journal.

SATURDAY, JULY 18TH, 1863.

THE COURT OF EXAMINERS OF THE COLLEGE OF SURGEONS.

THE necessity which prevails for an infusion of younger and more scientific blood into the Court of Examiners of the Royal College of Surgeons is manifest enough to every one (outside the Court of Examiners) who will give a moment's thought to the subject. A correspondent this week calls attention to the fact that, for the prizes offered by the Royal College, there is a deficiency of competitors, and sometimes no competitors at all. How is this? it may well be asked. Our correspondent ascribes the fact to the circumstance that the working minds in the profession have no faith in the capacity and sufficient knowledge and powers of judging of the judges. They do not feel that original and modern scientific investigations will have fair consideration at the hands of those who, as they imagine, have grown too old to change their ideas or modes of surgical action. We note the fact, at all events, that valuable as the prizes offered by the College are, and honourable as their attainment should be in the eyes of the profession, the numerous energetic and working surgeons of the country do not turn their attention to them. For some reason or other, they are passed over as things not to be attempted.

In confirmation of a remark made in a late number of the JOURNAL on this subject, we may further observe that a gentleman, who has long been a teacher of anatomy in this metropolis, assures us that he has constantly felt the necessity of instructing his pupils down to the level of the examinations of the College. He quite confirms the views suggested by us; viz., that the examinations are often of a character so far behind the knowledge of the day, and of so particular a character, as to render a resort to the grinder a reasonable action on the part of the candidate. At all events, it is a well known fact that no one knows so well as grinders the proper answers which candidates should be prepared to give to certain questions proposed by certain Examiners.

With regard to the constitution of the Court of Examiners we may make one or two remarks; for it really is a thing most surprising to note the ignorance displayed both by the profession at large and also by the press generally on all subjects connected with this remarkable College. The general darkness which reigned over the College and its constitution was complete until this JOURNAL undertook to enlighten the profession about its doings.

We must, therefore, here observe, that the Court of Examiners is composed of ten Fellows of the College, who, according to the charter, may be elected out of the Council, and out of the general body of Fellows. Each Examiner is elected for five years; at the end of which period he is eligible (*i. e.*, by the laws) for re-election, and, we may add, has hitherto invariably been re-elected. Of the present Court of Examiners, there is only one Examiner who is not subject to this quinquennial process of re-election; and that gentleman is Mr. Lawrence. Mr. Lawrence is the only one left of the original men who were in office as Examiners at the time of the passing of the charter of 1843. He, therefore, according to the terms of the charter, remains an Examiner for life. But every other Examiner now in office goes out at the end of his five years; and, we need hardly say, will, unless the present routine system is broken through, be no doubt re-elected.

And here should step forwards, and show itself in action, the spirit of reform with which, as it is anticipated, the Council is now impregnated. This spirit should declare in Council that the system of re-election of ancients is contrary to the charter, and contrary to the demands and intention of the Fellows and Members of the College; and that the declared opinion of the profession is, that new and capable men, from the body of the Fellows at large, if they are not to be found in the Court or in the Council, must be elected—men in whom the profession can have confidence as Examiners. This is the duty which now devolves upon Messrs. Lane and Hancock and Busk. It was for this work that they were elected to the Council of the Royal College. *Hic labor, hoc opus est*—this must be their motto, if they do the duty expected at their hands. But the profession itself must still back them. So quietly and snugly is the work of the College done, that of this matter of election of Examiners the College knows nothing, as a rule, until the thing is done by the Council. The apathy of the Fellows and Members in this important matter has hitherto, indeed, been surprising. It must be the business of the profession publicly to discuss the election of each Examiner, just as it has discussed the subject of the election of Councillors. True, it is the business of the Council to elect the Examiner; but it is equally the business and the duty of the Fellows of the College at large to demand of the Council why it is that they never have done what the charter enjoins them to do; viz., elect Fellows outside the Council and outside the Court of Examiners, as well as from within the Council and within the Court of Examiners; and also why it is that the retiring Examiner is invariably re-elected, whether he be or be not fitted for the business.

MR. CÆSAR HAWKINS AND THE COURT OF EXAMINERS.

MR. CÆSAR HAWKINS does not hold the office of Examiner of the Royal College of Surgeons for life, as we are told he does by the *Lancet*, and as is generally believed in the profession. The very fact of his lately offering himself for re-election as a Councillor shows that such could not be the case. Had he been on the Court of Examiners when the new Charter was obtained, he would, like Mr. Lawrence, have been an Examiner for life. But he was not. He was elected under the new Charter.

Mr. Cæsar Hawkins, therefore, if he continue an Examiner after his present quinquennial period of office is accomplished, must be re-elected into office. But here comes a most knotty matter for the decision of the Council. The Council have hitherto determined that no man should be an Examiner who was not also a Councillor. To this rule, as we have shown, they have most rigidly and wrongly adhered; and, if we mistake not, it has had no more fervent supporter than Mr. Cæsar Hawkins himself. And now, with a stroke of that kind of dramatic justice in which the old Greek play indulges, Nemesis puts Mr. Cæsar Hawkins into the very position which he and the Council have so long declared is an untenable one. No man who is not a Councillor shall be an Examiner; this has been their dictum rigidly put in practice. But now mark the recoil of this logic, as applicable to one of themselves!

Mr. Cæsar Hawkins is not a Councillor, therefore Mr. Cæsar Hawkins shall not be an Examiner. This is really the case of Prometheus chained to the rock. How will Mr. Cæsar Hawkins meet the difficult position in which his own long-nourished principles in Council have placed him? Will he, no longer a member of Council, stick to the office of Examiner up to the termination of his five years Examiner's life, the office which his own principles have made so false a one for him? And what will the Council, his late colleagues, do? Will they, when his term of office expires, have the courage to belie the principles to which they have hitherto so stoutly adhered, and so put themselves in the (for them) false position of re-electing a non-Councillor to the Examinership—of electing, in fact, an Examiner from outside of the Council? Certainly, if Mr. Cæsar Hawkins be consistent, his clear course would be instantly to resign the Examinership. And certainly, if the Council should, at some future day, re-elect him Examiner, then they will, for the first time, to the great gain of the profession, and sorely against their grain, have laid down and acknowledged in practice the principle of the Charter, which says that Examiners may be elected from the general body of Fellows—the principle for which we have been so long fighting.

Sir Benjamin Brodie, it must be remembered, resigned his Examinership, because he thought it his duty to obey the intention of the Charter; viz., to let younger men into the Court; but by doing so (though he remained a life member of the Council) he was considered by the Council to have rendered himself unfit for the office of President of the College. No man (they said) shall be President who is not of the Court of Examiners—although the Charter says he may. How then, we may now fairly ask of those who have upheld this system, can it be right, according to your theory and practice, for a man who is not a Councillor to be an Examiner? How can Mr. Cæsar Hawkins, consistently with the theory and practice which he has so long upheld, remain an Examiner now that he has ceased to be a Councillor?

Altogether, this is one of those interesting little episodes, which naturally crop up, sooner or later, like fungi, from the scene of a false position. We recommend its conclusion to the attention of our readers.

In the meantime, we have now before us the novel and interesting fact demonstrated for the first time in the history of the College, and in the person of Mr. Cæsar Hawkins; viz., that a Fellow can be an Examiner without being a Councillor. Nay, more, we have to note that it is positively only by this forced acknowledgment of the very terms of the new Charter, which have been heretofore so strenuously ignored by the Council, that Mr. Cæsar Hawkins can hold his Examinership. The Councillors, to save themselves from the consequences of their own long and falsely assumed position, are now obliged to take advantage of the long evaded charter to save themselves! Was ever retributive justice more painfully complete?

LONDON AND PARIS HOSPITALS.

M. BLONDEL, head inspector, and M. Ser, engineer of the Administration of Public Health, have issued a Report on the hospitals of London, in which a comparison is made between them and the Paris hospitals.

As regards the origin of these charities, the Report says that in France, as well as in England, they were the productions of individual charity; but the characters of the two are now different. The English hospitals are supported solely by their own revenues, or by annual subscriptions; and, being managed entirely according to the will of the subscribers, are private institutions. But in France the hospitals have become mixed establishments, being in part supported by grants from government; consequently they are public institutions. The number of the hospitals in London is not regulated in any

way according to the wants of the population, as it is in France. London hospitals are founded somewhat in accordance with the caprice, etc., of individuals; and thus, though more numerous than in Paris, are less effective in providing for the medical wants of the poor.

As regards their *nature*, many hospitals in London, desirous of encouraging subscriptions, only receive those patients who are recommended by subscribers. Some hospitals, again, reject certain classes of diseases, etc. The French establishments, on the other hand, are open to all sufferers, and are asylums to all the wretched who ask for aid; so that we may say the French hospital system is the most liberal of the two.

Like all English buildings—houses, palaces, or hotels—London hospitals appear inferior to the French in amplitude of proportion, in regularity of lines, and in elegance of style. The internal arrangements of English hospitals are much more simple than those of Parisian hospitals; but, on the whole, those hospitals which are of modern construction seem to the Reporters preferable to the best London hospitals. The *situation* of London hospitals is the result of hazard; they are not located with any reference to hygiene, or to the wants of the population. On the contrary, the Paris hospitals are disposed according to the actual necessities of the people. French hospitals are more frequently isolated than English hospitals; they have also more space within them in the shape of courts and gardens, etc. English hospitals are badly off in this respect. Promenades for the convalescent are almost wholly wanting in London hospitals. Those English hospitals which have reached what is held to be their proper development contain as large agglomerations of patients as the Parisian hospitals. The shape of the wards is more varied in London than in Paris. The English have not yet determined what is the best shape. In Paris, the wards receive light and air from both sides of the wards, and can be ventilated from one end to the other by doors or windows. The size of the wards differs in both countries. In England, they contain, on an average, from twelve to twenty beds. In Paris, the wards either contain fewer, or, on the other hand, a great many more beds. In England, each patient has about forty-four cubic *mètres* of space; and in France about forty-three. The furniture in the wards of English hospitals is as simple, it may be said as insufficient, as it is complicated and comfortable in Parisian hospitals. The English prefer natural ventilation by opening windows, etc.; the French, on the contrary, by mechanical contrivances endeavour to prevent the necessity of opening windows. General cleanliness is, for various reasons, more easily maintained in London than in Parisian hospitals. The diet of French hospitals is more varied, and there-

fore more rational, than in English hospitals. In England, the nurses are all female; they are more numerous also, and better paid. The general mortality is about the same in London as in Parisian hospitals. The cost of construction is as great in London as in Paris, and the annual expenses greater. Each bed in London costs, on an average, about 1,155 *francs*, and each patient 137 *francs*; in France, the figures are 776 *francs* and 51 *francs*.

The Report adds: It is desirable that French hospitals should always be, like the English, free from over-crowding; that the wards should be free from odours, as they are in English hospitals—provided it be shown that the means adopted in England for ventilation are not more hurtful than the evil which is sought to be avoided; that the closets, etc., attached to the wards, should be made as cleanly; that the nurses should be as numerous as in London hospitals; and that the “services” should be made to approach as near as possible to “Britannic simplicity”. But (winds up the Report) let us do ourselves justice. We are superior to our neighbours, and surpass them in the road on to perfection. The comparison of the general mortality is in our favour; and as to the special mortality attending operations, it may be said that the comparison has been made only in a vague fashion.

This summary of a rather egotistical production will, we fancy, scarcely be accepted as containing a true parallel of hospitals English and French. It is well, however, that we should know what our neighbours think of us in this way.

A PHYSICIAN WANTED.

THE Derby Hospital has been for a long time past in vain advertising for the services of a physician. No medical man in that capacity will listen to the voice of the charmer. Derby, we are told, once kept three physicians in good practice. Now it cannot keep even two. The governors, therefore, have been compelled to alter the laws of their hospital, to enable them to elect a general practitioner to do the physician's work at the hospital. It is a pity that some one did not suggest to the governors that it would be well for them to hire and pay a physician to do the work, if they think the services of a physician are really required.

We often have to listen to a good deal of bunkum on the rights of the sick poor to the very best medical advice—at least, we hear this sort of thing from the lips of governors who can find medical men foolish enough to work gratuitously. For those who really believe in what they preach, here at Derby is a great opportunity to back their sentiments by subscribing and paying for the article. For ourselves, we must say that this is an argument of which we never could understand the justice. Why is the

pauper entitled to the first medical advice, as it is called, or supposed to be, any more than the curate, or the schoolmaster, or any of the many persons above the pauper in rank, who are obliged to be satisfied with their ordinary medical attendant when sick? The pauper sick have a right only to the pauper's doctor. And if doctors choose to give their advice gratis at hospitals, they do so neither for charity, nor out of a love of duty; but simply because it answers their purpose to do so indirectly.

But at Derby the indirect advantage usually derived from the gratuitous services is not forthcoming. Neither is the doctor. Then, we say, let the philanthropic governors who preach so much about the rights of the poor to this sort of first-rate advice now show their philanthropy by paying a physician to do the work.

The truth is, we believe, that very great significance attaches to this Derby Hospital incident. It shows that the social position of the profession is undergoing a change. It is an indication of the passage of medical practice into the one faculty system. It certainly must be confessed that this is the point towards which all modern medical legislation tends. The educational system of different examining boards is every day becoming more assimilated; and we think also that the feeling is gradually finding its way into the minds of the profession, that it would be very desirable that the amount of education required of all candidates by medical examiners should be alike.

Then, again, we cannot but see in the condition of the profession at Derby an illustration of the fact of the immense improvement which has of late years taken place in the education of what is called the general practitioner.

There is, in truth, very little, if any, difference in the amount of lectures, etc., required of the physician and of the general practitioner. The world begins to learn, what the profession has long known, that, in reality, a medical man begins to learn his business practically after he has passed his examinations, and has become a doctor, or surgeon, or general practitioner. And then, according as he distinguishes himself in practice, or as he gains the public confidence, does he obtain his status in society as a medical man. Our friend, Dr. Ogle, who has manfully fought the battle of physicians on this occasion, takes, we fear, a by-gone view of things. If the public have come to think that their own ordinary practitioner is as well educated and as full of knowledge, for their purposes, as any physician or surgeon, we may reasonably conclude that they will not care to pay their guineas to the consulting men. We wish Dr. Ogle would ask the governors of his hospital on what grounds of fair play they expect him and his colleagues to do the work of the hospital gratis? If there be any real honesty in the argument, that

the sick poor have a right to all this first-rate (as supposed) advice, then, if the first-rate advice cannot be had gratis, the governors are bound in conscience to buy and pay for it.

THE WEEK.

WHAT may be done by members of the profession, when they are in earnest and united, has been well shown at Bedford. It is impossible that any medical man who has any respect for himself can resist the united expression of opinion of the medical brethren around him. This is not the first proof we have had of the fact that the profession at Bedford is in a healthy condition. The leading men of that town are resolved that, as far as they are concerned, the practice of medicine shall be carried on legitimately and honourably. They will have no dalliings with the trickeries and fopperies and quackeries which hang about the skirts of the profession. They leave those things to their brethren in the metropolis. These gentlemen deserve well of the profession at large for the honourable stand which they make and have made for the upholding of honourable practice and legitimate medicine. At a meeting held at Bedford on the 6th instant, a Medico-Ethical Society was established—a court of appeal to preside over the medical morals and practice of the practitioners in and around Bedford. One gentleman on the occasion, Mr. Coombs, whose name is already familiar to our readers, pledged himself on the occasion no more to practise homœopathy. He refused, however, to give up the title of M.D. obtained at a homœopathic university; and his medical brethren, consequently, still refused to meet him in consultation. Moreover, a gentleman who had hitherto used the title of M.D. on the strength of being a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, on being appealed to, very creditably gave up the title. A resolution was also passed to the effect that medical men should refuse to meet in consultation those who meet homœopaths in consultation. We sincerely congratulate our medical brethren at Bedford on the honourable position assumed by them. We need, we are sure, hardly hint to the Medico-Ethical Society that all its resolutions should be marked by extreme calmness and consideration. Nothing so much damages the force of such societies as any hastily conceived resolutions which are not founded in abstract justice.

THE *American Medical Times* says of Washington City, the national capital,

“That it is undoubtedly in the most insanitary condition of any city in the United States. The principal sources of uncleanness are thus given by Dr. Henry G. Clark:—1. The accumulation of large numbers of men and animals in confined locations. 2. The accumula-

tions of filth, such as vegetable and animal offal, consequent on the above. 3. The entire neglect of cleansing operations in the yards, lanes, and streets of the city, especially the very deficient drainage. 4. The nuisance of a shallow, and neglected, and filthy canal in the heart of the city, a receptacle of the sewers, and a place of deposit for dead horses, etc. 5. The marshy and stagnant water in many vacant lots, some of them—as in North Capitol Street—near large hospitals, the want of drainage of which has rendered many parts of the city, as that near the President's House, malarious spots, producing intermittent and remittent fevers, jaundice, etc. 6. The accumulation of the sick in large numbers is a very powerful means, unless proper sanitary measures are taken, of intensifying all the ordinary and extraordinary causes of disease."

Dr. Marion Sims, we read, lately performed an operation in M. Nélaton's *clinique* at the Hôpital de la Clinique, in a case of vesico-vaginal fistula. His operation produced occlusion of the vagina, which was objectionable, "as it would prevent fecundation, and cause the menstrual fluid to be evacuated by the bladder. But this inconvenience was much less", it was argued, "than that of the fistula."

M. Bouillaud related to the Academy of Medicine, on the 9th inst., a case of anomalous state of the heart in a man thirty-nine years old. The interventricular septum was absent; the pulmonary artery was contracted, and had no valves. The auriculo-ventricular valves were normal; the aorta had but two valves. The aorta passed up before and to the left of the pulmonary artery. The subject died of brain-disease. The signs observed were irregularity of heart's action, and those of hypertrophy of heart. A loud *bruit de souffle* was heard, and a vibratile *frémissement* felt. Cyanosis did not exist.

M. Rayer, in presenting Dr. Davaine's *Treatise on Entozoa* to the Academy of Medicine, pointed out the novel facts contained in it. Amongst others, it was pointed out that M. Davaine has shown the presence of the *ova* of entozoa in the fæces when no worms were visible in them—a fact of possible service in diagnosis.

OUR ARMY IN INDIA: ITS SANITARY STATE.

THE Royal Commission appointed in 1859 to investigate the sanitary state of the army in India has presented its report. The report is a comprehensive repository of facts and opinions upon every part of its great subject. It contains in the language of the Commission, "The rate of sickness and mortality and invaliding among our troops," both European and native, in every part of India and its dependencies; the prevailing classes and causes of disease; the sanitary condition of existing stations, and the improvements required in them; the rules to be observed for the selection of healthy positions, and especially of sanatoria in the hills; the principles of construction for barracks, tents, and hospitals; the best means of enforcing sanitary regulations and of organising the medical service efficiently; and the practicability of establishing a complete system of military statistics. We have hitherto held India at a cost of European life

which it is shocking to think of, since it has been mainly due to the neglect of the commonest precautions, if the report be true.

We had more than 90,000 soldiers in India in the year 1860, and more than 80,000 in the year 1861. The great majority of these are picked men in the prime of life, and the mortality of men of the same age in the healthy parts of England and Wales is at the rate of 8 in 1,000. In great towns and cities subjected to unfavourable conditions of health the rate varies from 9 to 12 in 1,000. There is no apparent reason why the mortality of our army at home in time of peace should exceed from 8 to 10 in 1,000. Until recently, however, it was no less than 17 in 1,000, though it is "now declining in proportion as the causes of disease are abolished or mitigated, and has already sunk to about 10." But this exaggerated death-rate of 17 per 1,000 must not only be doubled, but quadrupled, before it can be compared with the Indian standard. In one year, indeed,—1852,—it was as low as 41, but the general range has been from 58 to 80, 90, or 100. It was actually as high as 131 in 1804, during the first Mahratta war; averaged 85 from 1800 to 1829, and has stood at 69 for the whole of the present century. It is now a little below this, but the Commissioners consider that there has been little variation since our first occupation of the country. The inference is obvious, though it is so appalling as to be hardly credible. "Besides deaths by natural causes," which would be represented by 9 in 1,000, "60 head per 1,000 of our troops perish in India annually." It is at that expense that we have held dominion there for a century; a company out of every regiment has been sacrificed there every twenty months. These companies fade away in the prime of life, leave few children, and have to be replaced at great cost by successive shiploads of recruits."

And next comes the grand question,—What is the reason of this frightful loss of life, and how far is it preventable? To this the Commissioners answer, that it is not solely or mainly the climate which decimates our army. "Endemic diseases," and particularly fevers, diarrhoea, dysentery, cholera, and disorders of the liver, occasion by far the larger proportion of the mortality. Malaria, and the joint agency of heat, moisture, and rapid changes of temperature predispose the constitution to these diseases, but it is the open neglect of sanitary laws which gives them their deadly virulence. The stations have generally been selected without reference to health, and often occupy low, damp, and undrained situations. The towns and bazars in their immediate vicinity teem with every nuisance that can breed pestilence under a tropical sun. An utter want of drainage, an impure water supply, defects in building and ventilation, imperfect means of ablution and cooking, and a bad system of barrack and hospital arrangements, combine to aggravate the effects of atmospheric conditions. Intemperance, sedentary habits, *ennui*, and self-indulgence fill up the list of the circumstances to which the Commissioners primarily attribute the excessive sickness of our troops, and by comparison with these they consider the influence of climate "altogether secondary." The proof of this lies not only in the express testimony of medical authorities on these points, but in the returns of mortality among officers and civilians, as well as among private soldiers, at those few stations where the evils pointed out have been partially corrected. Here the death-rate is no more than 20 in 1,000, and if the same improvement could be brought about, as it well might, all over India, 1,460, instead of 5,037, recruits would suffice to fill up the death vacancies in the proposed establishment of 73,000 men. The greater number of the suggestions made by the Commissioners are directed to the removal of these sources of disease. They recommend—"That the strategical points of the country be fixed, with special reference to reducing, as far as pos-

sible, the number of unhealthy stations to be occupied; that a sufficient number of hill-stations, or of stations on elevated ground, be provided; and that a third part of the force be located on these stations in rotations. And in order to introduce sanitary improvements by degrees into barracks, hospitals, towns occupied by troops, and seats of government, they urge the "appointment of Commissions of Public Health, one for each presidency, so constituted as to represent the various elements, civil, military, engineering, sanitary, and medical." To these boards they would delegate the general supervision of public health in India, arming them with the power of controlling every plan of building or other work that may affect the sanitary condition of the population.

PHYSIOLOGY OF MORMONISM.

DR. CHARLES C. FURLEY, assistant-surgeon, United States Army, writes in the *San Francisco Medical Press* as follows:—

On a recent visit to Salt Lake I had good opportunities for observing and inquiring into the effects of polygamy, as practically exemplified in the case of that people. It is, chiefly as a physiologist that I consider the subject, and in this view, I must say, the consequences of the Mormon system are in every aspect of the case hurtful and degrading. A marked physiological inferiority strikes the stranger, from the first, as being one of the characteristics of this people. A certain feebleness and emaciation of person is common amongst every class, age, and sex; while the countenances of almost all are stamped with a mingled air of imbecility and brutal ferocity. This, in fact, is their true character; they being obsequious and yielding to their superiors—to strangers sullen and spiteful, while among themselves they are cold and unamiable. In the faces of nearly all, one detects the evidences of conscious degradation, or the bold and defiant look of habitual and hardened sensuality—the women, with but few exceptions, shrinking from the gaze of the stranger, as if fully alive to the false and degraded position they are forced to occupy. Some seem overwhelmed with shame; others wear a forlorn and haggard appearance, while a few put on a cheerful air, affecting to be satisfied with their sad condition.

Without entering into minutiae, I may instance the following as a few of the bodily peculiarities that strike the medical man in mingling with the inhabitants of Salt Lake City. Besides the attenuation mentioned, there is a general lack of colour—the cheeks of all being sallow and cadaverous, indicating an absence of good health. The eye is dull and lustreless—the mouth almost invariably coarse and vulgar. I have nowhere seen anything more pitiful than the faces of the women here, or more disgusting than the entire appearance of the men. The children are puny and of a scorbutic tendency. The external evidences are numerous that they are doomed to an early death—the tendency to phthisis pulmonalis being eminent and noticeable.

The evidences of natural degeneracy are more palpable in the youthful than in the adult population. A more feeble and ill-looking race of children I have not met with, even among the vice and squalor of our larger cities. So far as food, climate, and other external causes are concerned, the children, as well as the adults here, are favourably circumstanced; their sanitary conditions are generally good; wherefore, we must look to the evils engendered by their religious and social system for the agents of this physical inferiority.

They are as gross and vulgar in all their tastes, thoughts, and styles of expression as in their bodily appearance. More than half their language is made up of slang phrases, nor do they relish the efforts of their

preachers, unless well interlarded with this style of speech. As a consequence, these men indulge freely in the most trivial, and, sometimes, in the most vulgar and blasphemous expressions, to the great delight and mental titillation of their hearers.

Under the polygamic system, the feeble virility of the male and the precocity of the female become notorious. The natural equilibrium of the sexes being disturbed, mischief of this kind must ensue; as a consequence, more than two-thirds of the births are females, while the offspring, though numerous, are not long lived, the mortality in infantile life being very much greater than in monogamous society; and were it not for the European immigration, the increase of inhabitants would be actually less than in Gentile communities. The fecundity of the women is remarkable, as might be expected, considering that the husband cohabits with the wife only at such periods as are most favourable to impregnation.

THE LATE JOHN JONES, ESQ., OF DERBY.

It is with feelings of unfeigned regret that we record the death of John Jones, Esq., surgeon, who expired at Derby on the 23rd ult. After a long professional career he has passed from us, lamented by the public and by a large circle of friends, more especially those of his own calling.

Mr. Jones is perhaps best known to the profession at large by his warm advocacy of self-supporting dispensaries. Encouraged by his friend Mr. Smith of Southam, and aided by some of his fellow townsmen, he established in the year 1830, the Derby Self Supporting Dispensary, and as its senior medical officer was connected with it until the day of his death. That the institution has been appreciated by those for whose benefit it was established, there need only be said that the average number of free members is considerably over 4,000, and its prosperity and usefulness must be mainly attributed to the unwearied interest manifested therein by its zealous founder.

He was also the earliest promoter of a museum illustrative of the natural history and productive wealth of this county, and has well deserved the thanks of his fellow townsmen. We only hope that successors may be found equally active and equally patient in the prosecution of this important work.

As an accoucheur the subject of this notice was most successful, possessing a large amount of valuable experience which made his assistance eagerly sought by many of his professional brethren. Imbued with a keen zest for medical science he was ever active in its pursuit, attending whenever he was able the meetings of the British Medical Association, of which he had been a member almost from its commencement.

In his character as a medical man Mr. Jones has left behind him an example well worthy of imitation. His candid and honourable conduct towards his professional brethren had won their highest confidence and esteem. With the strictest integrity he combined manners the most courteous and conciliatory. Free from all ostentation, a quiet but earnest Christian course marked his daily life, and whether socially or professionally his one high aim and singleness of purpose were apparent to all who knew him.

His medical attentions to the poor were beyond all praise. None ever applied to him in vain, and no considerations of personal fatigue or of unrequited service deterred him from promptly responding to their calls. In him they have lost an unknown friend, and the grief everywhere expressed for his loss is an undying tribute to his great worth. (*Derby Reporter*, July 3rd, 1863.)

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association will be holden at Bristol, on Wednesday, Thursday, and Friday, the 5th, 6th, and 7th days of August.

President—GEORGE BURROWS, M.D., F.R.C.P., F.R.S., London.

President-elect—JOHN ADDINGTON SYMONDS, M.D., F.R.C.P., F.R.S.Ed., Clifton.

All the meetings will take place at the Victoria Rooms, Clifton.

WEDNESDAY, August 5th.

1 P.M. Meeting of Committee of Council.

2.30 P.M. Meeting of the General Council.

4 P.M. First General Meeting of Members. The retiring President (Dr. Burrows) will make a few remarks. The new President (Dr. Symonds) will deliver an Address. The Report of Council will be presented, and other business transacted.

9 P.M. Through the kindness of the Committee, a *Conversazione* will be held at the Literary and Philosophical Institution, Bristol.

THURSDAY, August 6th.

11 A.M. Meeting of the Members of the New Council.

12 NOON. Second General Meeting of Members. The Address in Medicine will be read by WILLIAM BUDD, M.D. Papers and Cases will be read.

3.30 P.M. The Address in Surgery will be read by AUGUSTIN PRICHARD, Esq.

The Report of the Medical Benevolent Fund will be presented.

Papers and Cases will be read.

9 P.M. By the kind invitation of the President (Dr. Symonds) a *Soirée* will be held at his residence, Clifton Hill House, Clifton.

FRIDAY, August 7th.

12 NOON. Third General Meeting of Members. The Address in Chemistry in its Relations to Medicine will be given by WILLIAM B. HERAPATH, M.D., F.R.S. Papers and Cases will be read.

3.30 P.M. The Address in Midwifery will be read by J. G. SWAYNE, M.D. Papers and Cases will be read.

6.45 P.M. Dinner at the Victoria Rooms. Tickets One Guinea each. Gentlemen intending to be present at the Dinner are requested to send notice, as soon as possible, to Dr. MARSHALL, 8, The Mall, Clifton.

Members are requested to enter, on arrival, their names and addresses in the Reception Room at the Victoria Rooms, where cards will be supplied which will secure admission to all the proceedings.

Refreshments will be provided in the Victoria Rooms during the Meetings.

Members who wish for previous information may communicate with Dr. MARSHALL, 8, The Mall, Clifton.

Papers have been promised by T. S. Fletcher, Esq. (Bromsgrove); Graily Hewitt, M.D. (London); Lionel Beale, M.B., F.R.S. (London); G. F. Burder, M.D. (Bristol); W. O. Markham, M.D. (London); B. W. Richardson, M.D. (London); A. P. Stewart, M.D. (London); R. W. Coe, Esq. (Bristol); W. M. Clarke, Esq. (Bristol); G. D. Gibb, M.D. (London); Thomas Nunneley, Esq. (Leeds).

Papers and Cases will be read in the order of the dates at which notice of them has been received by the General Secretary.

Alteration of Laws. Notice of the following new Laws has been given by W. O. MARKHAM, M.D.

At each Annual Meeting of the Association, the Secretary shall lay before the first meeting of the Council a List of the Members of the Association, together with a separate List of all Members whose Subscriptions are in arrear, and the amount of Subscriptions due from each Member.

This List shall be at once referred to a Committee, consisting of four or more Members of the Council (three of whom shall form a quorum), together with the President and the Secretary. The Committee shall thereupon proceed to settle the List of Members for the ensuing year, retaining or erasing, as they may think fit, the names of any Members who are in arrear: provided always, that no person shall remain a Member of the Association who is more than two years in arrear. The List of Members thus corrected shall be presented to a subsequent Meeting of the Council, and shall, with their approval, be published immediately after the Annual Meeting.

The Secretary shall in each year, during the first week of June, supply the Editor of the JOURNAL with the names of all those Members of the Association whose Subscriptions have not been paid up to the 31st day of May in each year.

Notice of the following alteration has also been given by Dr. Markham.

In Law 15, for the words "twelve months", to substitute the words "five months".

PHILIP H. WILLIAMS, M.D., *Gen. Sec.*

Worcester, June 30th, 1863.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

THE Committee of Council will meet at the Queen's Hotel, Birmingham, on Friday, the 24th of July, at 1.30 P.M.

Business:—To prepare Report of Council, and to receive Report of Finance Committee, etc.

PHILIP H. WILLIAMS, M.D., *Gen. Sec.*

Worcester, July 13th, 1863.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
SOUTH-WESTERN. [Annual.]	Board Room of the Devon and Exeter Hospital.	Wednesday, July 22nd, 3 P.M.

GRATUITOUS MEDICAL SERVICES.

THE following suggestions as to the steps that might be taken by the Association to discountenance and suppress public gratuitous medical services have been forwarded to the Committee of Council by Dr. Gibbon:—

"1. To give publicity to all hospitals and dispensaries that recognise the principle of payment for medical service. This has done good service in the case of insurance companies.

"2. To append to every medical vacancy announced in the JOURNAL the amount of salary or *honorarium*, if any, that is attached to the post, just as the value is given with every clerical vacancy.

"3. To bring from time to time the expediency as well as the justice of paying for medical, no less than for legal and clerical services, under the consideration of the governors and committees of all institutions.

"4. To urge individual members, neither directly nor indirectly, to countenance or encourage the acceptance of gratuitous service, by giving testimonials, canvassing, etc., for such appointments.

"SEPTIMUS GIBBON, M.D."

The subjoined letter on the same subject has also been received by the General Secretary from Charles F. J. Lord, Esq. :—

"1, College Terrace, Hampstead, N.W.
"DEAR SIR,—Your Committee are right in considering that I take a deep interest in the attempt to break down the vile system of gratuitous medical advice; but I am not sanguine of doing much good, till an uniform co-operation is obtained from the profession. The few are the brave and unselfish; the many will seek the honour (?) of public appointments through speculations of incidental or ulterior advantages.

"I have found this in my long battle for the Poor-law medical staff, for which Mr. Griffin has subsequently worked so long and so hard. Medical men in these appointments perseveringly put the suicidal knife to their own throats, while the officers are kept to their task-work without redress, owing to the unworthy competition of their hungry professional brethren. With feelings arising from this experience, I do not expect any good from the fourth proposition of Dr. Gibbon; though, on the whole, I would very cordially support his four propositions.

"So soon as the measure may have acquired 'strength by going,' it would be important to have a public meeting. The matter is not mature enough for this at present; it may be so after the Bristol anniversary. Would the 'magnates' there assist by a vigorous support?

"Time has 'altered men and things'. Among the revolutions he has brought about should be reckoned the abolition of 'gratuitous medical service.' This service has become iniquitous, and should have 'died, sir, long ago.' Justice, benevolence, sound policy, and professional respect, now unite to demand this death, if only in the spirit of the motto or phrase, 'Let every tub stand on its own bottom.'

"I am, dear sir, yours very faithfully,

"CHARLES F. J. LORD.

"Dr. Williams."

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

THE Annual Meeting of the South-Western Branch will take place on Wednesday, July 22nd, at the Board-room of the Devon and Exeter Hospital, at 3 p.m. President-elect, Samuel Budd, M.D.

Dinner at Pratt's Hotel, Exeter, at 5 p.m.

C. H. ROPE, *Hon. Sec.*

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held on Wednesday, July 1st, 1863, at the Squirrel Hotel, Wellington.

A vote of thanks to the retiring President, HENRY ALFORD, Esq., was passed unanimously; and the President-elect, C. P. COLLYNS, Esq., of Dulverton, then took the Chair.

The minutes of the last annual meeting having been read and confirmed, the following Report of Council was presented.

Report of Council. "Your Council are pleased to announce that the Branch continues in a prosperous condition. During the past year, one new member has joined, and one has withdrawn owing to removal of residence. Two members have not paid their subscriptions for three years, and have removed from the neighbourhood. The society will have to determine what course to adopt with respect to them. If their names are omitted, the Branch will number thirty-one members.

"Since the last annual meeting, your Council have not been called upon to consider any public matters of interest or requiring comment.

"Acting on the suggestions made last year, a *conversazione* meeting was held on the 7th January, at which the following communications were read :—

"1. Excision as a Local Mode of Treatment in Cancer of the Mamma. By Henry Alford, Esq.

"2. Case of Aneurismal Tumour of the Femoral Artery. By William Liddon, Esq.

"3. Case of Gun-shot Wound of the Arm, with Division of the Median Nerve and Brachial Artery, where Recovery ensued. By H. W. Randolph, Esq.

"There were also some interesting pathological preparations exhibited; and short histories of the cases in which they occurred given.

"Your Council believing that such a reunion of our members is not less useful than agreeable, are encouraged to recommend that a meeting of the same character should be held in the ensuing winter.

"The Treasurer's Report shows that the finances are in a satisfactory condition, and that a balance remains to the credit of the society. The usual payment of one shilling and sixpence by each member for Branch expenses is recommended to be continued.

"Your Council, in conclusion, beg to call the attention of members to the claims of the Benevolent Fund—subscriptions in aid of which are earnestly sought by the promoters of that most excellent and useful Fund."

Removal of Members. It was resolved that the names of Dr. Sewell and Dr. Sawkins be omitted from the list of members of the Branch.

Conversazione Meeting. It was resolved—

"That a *conversazione* meeting be held during the ensuing winter at Taunton."

The Treasurer's Report was received and approved. It was resolved—

"That the annual Branch subscription of one shilling and sixpence be continued."

Next Annual Meeting: President-elect. It was resolved—

"That Hamilton J. Kinglake, M.D., of Taunton, be President-elect; and that the next annual meeting of the Branch be held at Taunton."

Council. It was resolved—

"That the Council for the ensuing year do consist of the following members :—W. E. Gillett, Esq.; R. A. Smith, Esq.; W. Liddon, Esq.; H. J. Alford, Esq.; G. Kidgell, Esq.; and W. Reynolds, Esq."

Secretary. A vote of thanks to Dr. Kelly for his services during the past year was passed; and he was re-elected Honorary Secretary to the Branch for the ensuing year.

President's Address. The President then delivered an address. After some introductory remarks, he observed that it was the duty of the profession to prevent disease as well as endeavour to cure it; and he instanced an occurrence of last autumn, when the town of Tiverton was visited by low fever. As soon as servants became attacked, they were removed to the homes of their respective parents, thus conveying the disease into what was before a healthy locality. Three cases of typhus were brought into three different parishes in his neighbourhood; the disease spread in each, and valuable lives were sacrificed in consequence. To obviate this, he suggested that every union house in the kingdom should have a fever ward attached, to which the class of patients he had alluded to should be sent, instead of to their homes. He thought the British Medical Association should urge this on the authorities of the country; and he considered it would not be a very great interference with the liberty of the subject if a compulsory clause were introduced into any Act that might be required for the purpose to compel this class of persons to be conveyed to the ward, where proper medical and other attendance was provided for them, instead of propa-

gating disease in other localities by being removed to their respective homes.

He then called attention to the working of the present Poor-law system; and here, too, he thought the Parent Association should interfere, and apply to the Government to have some medical element associated with the Poor-Law Board. He instanced the treatment his son, lately one of the medical officers of the Dulverton union, had recently experienced. This gentleman had for six years filled the office of Surgeon to the Union House, at the pitiful salary of £20 a-year. He was also the non-resident medical officer to No. 2 District. On three several occasions, he had to perform amputation on inmates of the Union House, and required to engage the assistance of a neighbouring surgeon, to whom, on two of the three occasions, a fee of two guineas was paid by the guardians; but the third time they demurred; and, after a correspondence on the subject between their medical officer (Mr. Collyns), the Board of Guardians, and the Poor-Law Board, ending in the fee being refused, Mr. Collyns felt himself compelled to resign his appointment to the Union House. The Board of Guardians thereupon advertised, offering the increased salary of £30 a year for the House, and promised that the District No. 2 should be given to the person elected, as soon as Mr. Collyns' year of office, then having five months to run, had expired. After much delay and dis-appointment from successive elections and resignations, Mr. Attwater, a surgeon with only one qualification, was at length installed in office. Now this office not only comprised the union house and the No. 2 district of the Dulverton Union, which contains an area of above 20,000 acres, but Mr. Attwater held and still holds appointments in the Southmolton Union embracing an area of nearly 30,000 acres; thus making a total area of above 50,000 acres, over which enormous district he has medical charge of the sick poor. All this time there were duly qualified medical men at Dulverton who offered for, and were ready to take, the appointment to the house; and the No. 2 district Mr. Collyns did not wish to abandon, and offered himself for re-election. The Poor-law Board were made fully aware of all these circumstances; nevertheless, they have chosen to confirm the appointment of Mr. Attwater. The President dilated on this special grievance, and intimated that a pamphlet with all the correspondence had been published, and might be had by any member on application to him. He expressed the belief that the presence of a medical element at the Poor-law Board would have influenced a different decision and issue in this case. Unless some mode of redress were adopted, he thought it would end some day in a great majority of the body of union medical officers combining to give in their resignations simultaneously.

The address concluded with some observations on the past and present treatment of pneumonia. The President thought the old practice of bloodletting the safest; and he believed a great mortality arose from the want of bleeding in the early stage of the disease, and perhaps also from pleurisy being often complicated with, and sometimes mistaken for, pneumonia. He considered that, if the pulse be full, not yielding to the pressure of the finger, bloodletting, and that not sparingly, but from a large orifice, was the best remedy; if the pulse be small, frequent, and yielding, topical bleeding by leeches or cupping should then be resorted to for relieving the congested organ. He had seen many a patient in this disease, who had lost fifteen or twenty ounces of blood from the arm, recover afterwards under a stimulating plan of treatment, who he believed would have been lost, had the depletion not first been adopted. He allowed that bloodletting was formerly carried too far, and instanced some amusing examples of the practice as he had witnessed it in his early days. He urged on all practitioners, when called early in the attack to a patient

suffering from severe pain in the chest accompanied with fever, and the pulse not yielding to the pressure of the finger, first to bleed, and then afterwards resort to stimulants; and this he believed to be the best practice. He wished to remark, in reference to these observations, that they were noted on paper before he read the recent articles on the subject of blood-letting in the pages of the JOURNAL.

The Poor-law System. After some discussion on the points raised in the President's address, the best thanks of the meeting were accorded to him, and the following resolution was passed.

"That this meeting do request the Council of the Association to bring before the annual meeting in August next the desirableness of urgently memorialising the government to introduce into the Poor-law Board some medical element, to assist them in deciding all matters connected with the medical department of that Board."

Dinner. A party of eleven afterwards dined together, under the presidency of C. P. Collyns, Esq., at the Squirrel Hotel; many interesting medical discussions being intermixed with the usual loyal and other toasts of the evening.

MIDLAND BRANCH: ANNUAL MEETING.

THE Annual Meeting of the Midland Branch was held in the Board-room of the Infirmary, Derby, on Thursday, July 2nd, at 2 P.M.; HENRY GOODE, M.B., President, in the Chair. There were also present fifteen members and several visitors.

Mr. SYMPSON, the retiring President, first took the Chair, and in a brief speech introduced his successor, Dr. GOODE, who delivered an address, which is published at page 57.

Mr. SYMPSON proposed and Mr. BAKER seconded a vote of thanks to Dr. Goode, which was carried by acclamation.

Report of Council. Mr. SYMPSON read the following Report of Council.

"Your Council, in presenting to the members of the Midland Branch of the British Medical Association the report for the past year, rejoice in being able to congratulate them on the satisfactory manner in which the meetings have passed off, and on both the number and the value of the communications which have been read; whereof the following is a list:—

"1. Case of Traumatic Aneurism of the Gluteal Artery successfully treated by Ligature. By E. F. Broadbent, Esq.

"2. Two Cases of Melasma, or Bronzed Skin of Addison's Disease. By E. Morris, M.D.

"3. Case of Tania treated by the Areca-Nut. By E. Morris, M.D.

"4. On the Prevention of Incontinence of Urine after Female Lithotomy. By Thomas Paget, Esq.

"5. Some Cases of Intermittent Fever following Injury to the Spleen. By S. Lowe, Esq.

"6. Some Interesting Cases of Strangulated Hernia, with Various Complications. By C. Brook, Esq.

"7. A Case of Sporadic Cholera, with Rupture of some of the Fibres of the Gastrocnemius Muscle from Violence of Spasm. By G. Mitchinson, L.K. & Q.C.P.I.

"8. On the Advantage of Retaining the Staff in the Bladder during the Operation of Lithotomy. By E. Morris, M.D.

"9. The Difficulties of Signing Certificates of Lunacy under the Existing State of the Law: with Cases. By E. D. Walsh, Esq.

"10. Case in which Biliary Calculi escaped through a Sinus in the Abdominal Wall. By T. Sympton, Esq.

"11. Dislocations of the Knee-joint. By C. Brook, Esq.

"12. Puerperal Convulsions. By S. Lowe, Esq.

"13. Case of Inflammation of the Left Femoral Vein, followed by the Formation of an Abscess round the Shoulder-joint: Symptoms of Pyæmia: Recovery. By G. Mitchinson, L.K. & Q.C.P.I.

"14. Case of Disease of the Tarsal Bones: Amputation of the Foot after Pirogoff's Method: Recovery. By T. Sympton, Esq.

"A feeling of disappointment having found expression at some of the meetings, that such opportunities as were afforded by them of friendly intercourse and scientific discussion should be lost to the Lincoln members for so long a period as three years, during the holding of these meetings at other towns within the circle of the Branch, it was unanimously resolved that a Local Medical Society be formed, the establishment of which, it is hoped, will not fail indirectly to strengthen and promote the prosperity of the Branch, by keeping alive a spirit of unity, good feeling, and scientific rivalry among its members, similar to that fostered and encouraged by the British Medical Association, and by awakening those who have not yet become members to the benefits conferred by that Association, will induce them to join it when the Branch again assembles at Lincoln.

"The New Society was happily and successfully inaugurated at Bassingham, on the 25th of June, and the members were most hospitably entertained by Mr. Osborne Johnson."

Dr. WEBB moved, and Dr. OGLE seconded the adoption of the report. Dr. Webb suggested that the meetings in the several counties should be held in different parts of the county, and not always in the county towns.

Mr. WHITE supported this recommendation, and observed that it had already been acted upon during one of the periods of meeting in Lincolnshire, when the Branch met at Spalding.

Officers. A vote of thanks was proposed to the retiring President, the members of the Council, and the Secretaries for the past year; and the members of Council were re-appointed for the several counties. Mr. Dolman was appointed Secretary for Derbyshire; Mr. White was re-appointed for Nottingham; Dr. Sloane for Leicester; and Dr. Mitchinson for Lincoln.

President-elect. Mr. WHITE proposed, and Dr. WEBB seconded—

"That Dr. Ransom of Nottingham be requested to act as President for the ensuing year."

New Members. Mr. Marriott of Leicester, and Dr. Candy of Alstonfield, members of the General Association, were elected members of the Branch; and Mr. Frederick Stevenson of Nottingham, Dr. Charles Taylor of Nottingham, and Mr. William Maltby of Basford, near Nottingham, were elected new members.

Medical Act. The Secretary was called on to read a few of the clauses of the Medical Act, in which changes have been brought before the Medical Council, but no resolutions were agreed to.

Papers, etc. The following communications were made:—

1. Excision of the Upper Jaw. By S. W. Fearn, Esq. Mr. Fearn illustrated his paper by showing the subject of the operation and the fibrous tumour removed. As on a former similar occasion in another patient, the deformity was but small compared to the formidable nature of the operation.

2. Mr. FEARN also showed a large tumour, of more than eight pounds weight, recently removed from the back of a female. Also, a good case of Chopart's operation for removal of the foot, and a case in which most of the os calcis had been removed for disease, a useful foot being still left.

3. Case of Amputation at the Hip-Joint. By C. H. Marriott, Esq. This paper led to a discussion on the exposure of cartilages of joints; and Mr. GIBBORNE and Mr. FEARN remarked on the small chance of injurious

results from the cartilages of the lesser or greater joints being left exposed after operations.

4. Hematoma of the External Ear in Lunatics. By W. P. Stiff, M.D.

In the remarks which followed, Dr. GOODE stated that he thought ecchymoses occurred more frequently in some classes of lunatics than in other cases of disease.

5. Notes of Excision of the Carpal Bones in a Gun-shot Wound. By W. Newman, M.D.

Mr. FEARN stated that he had successfully removed the carpal bones for disease in two cases, opening the joint in each case by a longitudinal incision at the side of the wrist along the head of the ulna.

Mr. DOLMAN remarked that the removal of joints in the wrist would be more likely to be attended with success than similar operations in the foot.

A vote of thanks to the Chairman terminated the proceedings; after which, the members and their friends met at dinner at the King's Head, at 5 o'clock, and passed a convivial evening.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE eleventh annual meeting of this Branch was held at the Crystal Palace, Sydenham, on Tuesday, July 7th, at half-past 3 P.M. The Chair was taken by the retiring President, R. DUNN, Esq., who afterwards resigned it to his successor, FRANCIS SIBSON, M.D., F.R.S. There were also present thirty-four members and five visitors.

New Members. The following gentlemen, members of the Association, were elected members of the Branch; J. R. Gibson, Esq., Russell Square; W. S. Kirkes, M.D., Lower Seymour Street; and R. R. Mathewson, Esq., Belvedere, Kent.

Report of Council. Dr. HENRY, one of the Honorary Secretaries, read the following report.

"The Council of the Metropolitan Counties Branch have much pleasure in reporting that there has been a considerable increase in the number of members during the past year. At the last annual meeting, the number on the list was 132; since that date, there have been 10 resignations, and 53 names have been added, making the total number at present 175.

"During the year, the attention of your Council has been directed to the subjects of gratuitous medical services, and of medical evidence in courts of law.

"The evils arising from the present system of gratuitous medical services having been brought under the notice of a meeting of the members of the Branch held on Dec. 2nd and 9th, 1862, the subject was referred to the Council, in order that they might consider what steps, if any, might be taken for the suppression of the evil. After a careful examination of the subject at three meetings, your Council presented a report to a general meeting of the Branch held on March 25th, the proceedings of which have been reported in the JOURNAL. Your Council hope that the permanent Committee appointed at the last mentioned meeting will use their best energies in carrying out the objects which have been entrusted to them; and that they will receive every possible support from the other members of the Branch. Your Council would remind the members that the system of gratuitous medical services is deeply rooted; and that its eradication or modification will require lengthened and energetic action—which, however, if carried on, will in all probability be successful. Your Council cannot quit this subject without acknowledging the valuable suggestions and advice in regard to it which they have received from Dr. Gibbon, an active member of the Branch.

"The subject of medical evidence in courts of law has for some time past been, and is still, exciting so much attention among the members of the Association and the

profession, that your Council have felt it a duty to take so important a matter into serious consideration, and to submit to the present meeting a series of amended resolutions, which, if thought proper, may be adopted by it as an expression of the views of the Branch as to the rules which should guide the conduct of medical men when called on to give evidence in courts of law. A copy of these resolutions has been forwarded to each member of the Branch, with the circular calling the annual meeting.

"Your Council would suggest to their successors in office that, as the Branch has received so great an accession of strength during the last year, and seems likely, if judiciously fostered, to go on increasing, they should take into consideration the propriety of instituting meetings of the Branch at which papers may be read or lectures delivered on subjects connected with medicine or the collateral sciences. It might be found possible, and be advantageous to the Branch, to bring before these meetings several matters of scientific interest to medical men, but which are not likely to be discussed in the ordinary medical societies of the metropolis."

On the motion of Dr. SEMPLÉ, seconded by Mr. BORTOMLEY, the report was, after some remarks on gratuitous medical services by Dr. Gibbon, Dr. G. Johnson, Dr. Stewart, and other members, received and adopted.

Treasurer's Report. Dr. HENRY read the Treasurer's report.

Receipts.

Balance in hand at last meeting . . .	9	18	9
Subscriptions received . . .	16	17	6
	£26	16	3

Expenditure.

Donations to Medical Benevolent College . . .	4	4	0
Donation to Medical Benevolent Fund . . .	2	2	0
Richards for printing . . .	7	9	6
Secretaries' expenses . . .	8	2	9
Balance in hand . . .	4	18	0
	£26	16	3

In addition to the balance in hand, there were also assets estimated at £8.

Election of Officers and Council. The following members were elected the Officers and Council for 1863-4:—*President*—Francis Sibson, M.D., F.R.S. *President-elect*—Charles F. J. Lord, Esq., Hampstead. *Vice-Presidents*—B. W. Richardson, M.A., M.D.; Robert Dunn, Esq. *Treasurer*—Edwin Lankester, M.D., F.R.S. *Secretaries*—A. P. Stewart, M.D.; Alexander Henry, M.D. *Ordinary Members of Council*—For the Metropolitan District: John Birkett, Esq.; W. Camps, M.D.; Septimus Gibbon, M.D.; Henry Lee, Esq.; William O. Markham, M.D.; S. W. J. Merriman, M.D.; John Millar, Esq.; E. H. Sieveking, M.D. For the Extra-Metropolitan District: William Martin, Esq. (Hammersmith); J. H. Paul, M.D. (Camberwell); Joseph Seaton, M.D. (Sunbury); Harrington Tuke, M.D. (Chiswick).

The President's Valedictory Address. Before leaving the chair, Mr. DUNN, the retiring president, briefly addressed the meeting. He thanked the members for the indulgence at all times and on every occasion extended to him during the time that he had been in office. Last year, he not only felt all the novelty of a new position; but also, with the prospect before him, of the great annual gathering in the metropolis of the British Medical Association, he felt certain misgivings as to his capabilities of discharging the duties of president in a manner that might be creditable to himself and satisfactory to the Branch. But the appointment of a committee of management for the occasion of the meeting of the Association, so efficient, energetic, and zealous, at

once banished from his mind all anxiety as to that meeting; and as for the rest, he had endeavoured to do his best, and he must say that his tenure of office had been one of unmixed pleasure to himself, and he had the satisfaction of knowing that the members of the Branch had increased. Glancing back for a moment upon the past, and at the success of last year's great meeting—for it was a great success, when the Royal Colleges of Physicians and Surgeons vied with each other, with true nobility on their part, in doing honour to our Association—he would say, that best thanks were due to the Committee of Management for their admirable arrangements. Seldom, if indeed ever, had there been delivered three more able and eloquent addresses on any such occasion; and the Committee gave proof of their wisdom in selecting representative men to deliver them. He need not remind the members with what rapt attention they listened to the stirring eloquence of Dr. Walshe, as he expatiated on the importance of deductive reasoning to practical medicine; to the marvels and progress of physiological science, announced by the clear and far-seeing Dr. Sharpey; or to the lessons of practical wisdom upon practical surgery as they fell, effectively and tellingly, from the lips of Mr. Paget. He finally congratulated the Branch on having elected, as the occupant of the presidential chair, so able and distinguished a man as Dr. Sibson, under whose presidency the Metropolitan Counties Branch was sure to flourish and to prosper.

Dr. SIBSON then delivered an address.

Representatives in the General Council. The following members were unanimously elected as representatives of this Branch in the General Council for 1863-4:—Geo. Burrows, M.D., F.R.S.; A. Henry, M.D.; Jonathan Hutchinson, Esq.; W. O. Markham, M.D.; B. W. Richardson, M.D.; C. H. F. Routh, M.D.; E. Smith, M.D., F.R.S.; and G. Webster, M.D.; with A. P. Stewart, M.D., *Secretary*.

Vote of Thanks to the Retiring President. Dr. HENRY moved, Dr. WEBSTER seconded, and it was unanimously resolved—

"That the thanks of the Branch are due, and are hereby given, to the retiring President, Robert Dunn, Esq., for the able and courteous manner in which he has performed his duties during his year of office."

Medical Evidence in Courts of Law. Dr. MARKHAM moved the adoption of the resolutions on medical evidence, which appeared in the JOURNAL at p. 631 of last volume.

Dr. HENRY seconded the motion.

Dr. EDWARD SMITH proposed, and Dr. ROUTH seconded, as an amendment to the first resolution—

"That, in giving evidence in courts of law, the medical witness should carefully distinguish between facts and opinions, and should as far as possible limit his evidence to the statement of facts. When, however, he is obliged to express opinions upon medical facts, he should state them explicitly as his opinions only."

The amendment was lost by a large majority; and the resolutions, after a discussion, in which Dr. Markham, Dr. Stewart, Dr. Seaton, Dr. Routh, Dr. E. Smith, Dr. Douglas, and Dr. Thudichum took part, were carried in the following form:—

"1. Whereas medical men of equal knowledge and honesty differ widely in their views of the nature and proper treatment of many diseases; and whereas the opinions of medical men, and especially of those of high standing, given in courts of law on medical matters, are not unfrequently (if uncontradicted) accepted both by judge and jury as of equal value with positive facts, and may consequently lead to the perversion of justice and the gross injury of innocent persons:

"This meeting is of opinion that no medical man is justified in expressing, in a court of law, a positive opinion on any medical subject concerning which he

is aware that medical men of equal knowledge and honesty with himself hold different views, without endeavouring to inform the court that his opinion is a personal one, and not universally accepted by the profession.

"2. Whereas it is seldom possible for a medical man to form, from the statements of patients themselves or of their non-professional friends (which are notoriously untrustworthy and defective), or from the present condition of the patients, an accurate judgment as to the propriety of the treatment previously adopted:

"This meeting is of opinion that no member of the profession is justified in expressing, in a court of law, an opinion as to the treatment adopted by another professional man, when his knowledge of the treatment employed in a given case is derived solely from the non-professional statements of the patient or his friends.

"3. Whilst expressing these sentiments, this meeting recognises in the fullest manner the solemn duty incumbent on every medical man, in common with all other classes of the community, to further the ends of justice by unhesitatingly deposing to all facts within his knowledge, without regard to the effect of such evidence on the interests or character of a professional brother."

Gratuitous Medical Services. Dr. GIBBON moved, Mr. LORR seconded, and it was resolved—

"That this Branch recommend to the General Council the desirability of carrying out the steps for the discouragement of public gratuitous medical services, which have been unanimously approved by this Branch."

Dinner. At half-past five, the members and their friends, including the Rev. Dr. Cookesley (vicar of Hammersmith), Colonel Ouvry, F. Ouvry, Esq., Dr. Waters (Chester), Dr. Armstrong (Gravesend), etc., to the number of thirty-five, dined together.

Correspondence.

EXAMINERS AND PRIZES OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—Whilst you are considering the reforms necessary in the governing body of the College of Surgeons, allow me to direct attention to one department of that College in which the existing system works most imperfectly. I allude to the annual prizes offered by the College, and the mode in which they are awarded. Scarcely a year passes in which it does not become apparent that no competitor offers himself for some of those prizes, and very frequently, indeed, the prize is given to the only candidate; yet, as shown by the proceedings of our Pathological Society, there are not wanting plenty of men who will work, provided only they can bring the results of their labours before a competent tribunal.

The terms upon which the College prizes are offered, demand "original investigation." But what security have those who, in the prime of life, bestow their best days to these investigations, that the examiners who for years have maintained a "dignified silence" upon those subjects should be in a position to appreciate their work?

The examination for the prizes is in some respects analogous to that for the diploma of members of the College. If an essay be presented containing matter differing in any great degree from that which was taught forty years ago, the examiners have no time to pause to investigate its merits, and the shortest way to deal with it is to consider it "theoretical."

Some who have tried for these prizes, and many who have not, do not consider the tribunal as at present constituted a fair test of the value of really original investigations, and they prefer appealing concerning such sub-

jects to a society or to the public. But the case would probably be different if men were appointed as examiners whom the profession know to have recently been themselves engaged in original pursuits. Every one might then submit his work to the College, with a full confidence that his labours would be duly appreciated.

I am, etc.,

VINDEX.

July 6th, 1863.

AN ELECTION OF COUNCILLORS.

SIR,—You last week wrote:—"We most sincerely congratulate the profession on the results of the late election." The Fellows "have shown a determination to exercise their power in the performance of their duty," and much more to that effect on one side. On the other, the present system "favours jobbery," encourages "skilful electioneers," gives a man "the advantages of electioneering trickery." "That the mode of election, therefore, is more favourable to the jobber than the high-minded man, needs no further demonstration." With all this latter article, I most cordially agree; but in the present instance it destroys the force of the former. To congratulate the profession that skilful jobbery, skilful electioneering, electioneering trickery, have led to a result however desirable, is hardly consistent with sound ethics.

In the present election, canvassing was most recklessly carried on for two of the successful candidates. I was canvassed by London physicians and country practitioners for one of them. Plumping was resorted to. Everything was done which ought not to be done; and the improper system carried its point—and the profession is to be congratulated. Elections as now carried on will do more to demoralise the profession in ten years than the old system would in fifty. Under such a system, no man except a pachyderm will come forward; a gentleman never; because no gentleman will compete with the pachyderm in his own way. It will be much as it is in a metropolitan borough; or in an election of a president of the once United States. I am, etc.,

A FELLOW.

[Our highly respected correspondent's indignation has manifestly produced in him a temporary confusion of ideas. Calm consideration will assuredly tell him that it is neither unchristian nor unprofessional to rejoice at the good that comes out of evil. He should rather have commended our consistency in rejecting the means, though on this occasion we gladly accept the conclusion. At all events, we are delighted to find that so able a man is on our side in the matter of condemnation of the present system of election. We hope he will assist us in the attempt of obtaining some more fair and rational system of election. We may, however, remind him that on this occasion no Councillor was elected by a minority of forty votes. EDITOR.]

NITRATE OF SILVER IN PREVENTING THE PITTING OF SMALL-POX, ETC.

LETTER FROM JOHN HIGGINBOTTOM, Esq., F.R.S.

SIR,—Having observed, many years ago, that the nitrate of silver had been used on the continent by MM. Velpeau, Bretonneau, and Serres, for the purpose of preventing pits and scars consequent on small-pox, I was induced to apply it as they directed, by puncturing the centre of each vesicle with a needle and then applying the solid stick of the nitrate of silver. I found it effectual in preventing any further progress of the pox.

The next patient on whom I used the nitrate of silver was a strong healthy young man about twenty years of age, with confluent small-pox. I punctured a few of the vesicles on the face; but these being very numerous, I satisfied myself with applying the concentrated solu-

tion over the whole surface of the face where they were most confluent, without making any punctures. The solution answered as well as where the punctures had been made in arresting the progress of the eruption.

The next case of confluent small-pox was one where no punctures were made. Mr. P., a young man, 19 years of age, and of delicate constitution. From the confluent state of the pox, I should have expected deep pits and scars on his face. I applied the concentrated solution on the whole of the face and ears in the same manner as recommended in erysipelas. The vesicles of the pox were immediately arrested in their progress, and in four days presented small hardened eschars free from inflammation, whilst the pustules on the body were gradually proceeding to suppuration. In about nine days, the eschar had come away from the face without leaving pits.

In this case, the nitrate of silver not only prevented the pits, but the inflammation and irritation and offensive suppuration, which are so distressing to the patient. If thought necessary, the nitrate of silver might be applied all over the scalp, as in erysipelas, to prevent cerebral inflammation.

It might be applied on and within the cavity of the ear to prevent otitis; and on the conjunctiva to prevent ophthalmia.

I have used as a gargle to the throat in small-pox, with great benefit, a solution of a scruple of nitrate of silver in three ounces of distilled water.

For the remedy to be successful in preventing pitting, it should be applied on the fourth or fifth day of the eruption; the concentrated solution being used, composed of the old stick nitrate of silver, four scruples to four drachms of distilled water. I am, etc.,

JOHN HIGGINBOTTOM.

Nottingham, July, 1863.

POOR-LAW MEDICAL REFORM.

LETTER FROM RICHARD GRIFFIN, ESQ.

SIR,—I shall feel obliged by your giving insertion to the annexed correspondence, which, I regret to say, gives no hope of any amelioration of the condition of the Poor-law medical officers this session.

I am, etc., RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, July 11th, 1863.

"12, Royal Terrace, Weymouth, July 8th, 1863.

"SIR,—On the 22nd June, I had the honour to forward to you, as the Chairman of the Select Committee on Poor Relief, certain documents which I desired might be laid before the Select Committee. May I ask the favour of your informing me if they have been received, and also if they have been considered; if not, when they are likely to be brought under the notice of the Select Committee? These documents I hold to be very important, as they not only contain a refutation of all the material points in Mr. Cane's evidence, but also prove that the present regulations for the medical relief of the poor require material changes before they can be made to approach anything like perfection; and therefore I trust they (the documents) will receive attention.

"I have the honour to be, sir, your obedient servant,
RICHARD GRIFFIN.

"The Right Hon. C. P. Villiers, Chairman, Select Committee Poor Relief."

"Poor-law Board, Whitehall, July 10th, 1863.

"SIR,—I am desired by Mr. Villiers to inform you that the Select Committee on Poor Relief have taken no evidence in the present session; and also to return to you the documents which you forwarded to him on the 22nd ult., as the Committee would not sit again during the session. I am, sir, your obedient servant,

"Richard Griffin, Esq." "HUGH OWEN.

Medical News.

APPOINTMENTS.

ALDERSON, Frederic H., Esq., appointed House-Surgeon to the West of London Hospital.

DAVIES, William, Esq., appointed Assistant Medical Officer to the Salop and Montgomery Lunatic Asylums.

McDIARMID, Albert, M.D., appointed Assistant-Surgeon to the Chatham Convict Prison.

RITCHIE, Charles, M.D., appointed Resident Physician to the Royal Hospital for Sick Children, Edinburgh.

RIVINGTON, Walter, Esq., elected Assistant-Surgeon to the London Hospital.

SURGES, Octavius, B.A., M.B., appointed Medical Registrar to St. George's Hospital.

TRENCH, William S., M.D., elected Medical Officer of Health for the Borough of Liverpool.

WILLIS, Francis, M.B., elected Assistant-Physician to the Westminster Hospital.

POOR-LAW MEDICAL SERVICE.

BLACKWELL, Thomas W., Esq., to the Balla Dispensary District of the Castlebar Union.

CESAR, R. T., to District No. 2 of the Alderbury Union, Wiltshire.

CREWE, John, Esq., to the Weldon District of the Oundle Union, Northamptonshire.

DODGSON, H., M.D., to District No. 2 of the Cockermouth Union.

MOORE, Lionel W., Esq., to the Debenham District of the Bosmere and Claydon Union, Suffolk.

SLOANE, Matthew H., M.D., to the Ovenden District of the Halifax Union.

STEWART, James S., M.D., to the parish of Tyrie, Aberdeenshire.

TOFTS, Henry, M.D., to the Woking District of the Guildford Union, Wiltshire, Jas., Esq., to District No. 1 of the New Forest Union.

WYLLIE, A., M.D., to the Borough District of the Walsall Union.

ARMY.

BELL, Surg. A., 76th Foot, to be Surg. 36th Foot, *vice* J. Jopp, M.D.

JOPP, Surgeon-Major J., M.D., 36th Foot, to be Surgeon 76th Foot, *vice* A. Bell.

MEIKLEHAM, Surgeon G. C., M.D., 70th Foot, having completed twenty years full-pay service, to be Surgeon-Major.

SCHROEDER, Staff-Assistant-Surgeon H. S. E. to be staff-Surgeon, *vice* A. Morphey.

MILITIA.

MARSHALL, J. S., Esq., to be Assistant-Surgeon 1st Lanarkshire Royal Militia.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

BARKER, S., M.D., to be Second Assistant-Surgeon 1st Sussex A.V.

HUSBAND, W. D., Esq., to be Surgeon 1st Administrative Battalion West Riding R.V.

PATERSON, W., M.D., to be Assistant-Surgeon 1st Buteshire A.V.

VINCENT, P., Esq., to be Surgeon 1st Administrative Battalion Cornwall R.V.

To be Honorary Assistant-Surgeons:—

DEVILLE, T., M.D., 37th Staffordshire R.V.

LAMBDEN, H., Esq., 15th Lincolnshire R.V.

RUFFE, R. E., Esq., 39th West Riding R.V.

SEABROOK, T. E. F., M.D., 12th Kent A.V.

MARRIAGE.

NICHOLSON, Adam, M.D., to Anna Mary, youngest daughter of the late Barnewall Jackson, Esq., of St. Vincent, at the Cathedral, St. John's, Antigua, on June 11.

DEATHS.

CATTON, Richard T. G., Esq., Assistant-Surgeon 3rd Dragoon Guards, at Ahmednugger, India, aged 28, on May 23.

COAR. On July 9th, at Oxford, Julia Elizabeth, youngest daughter of the late Thomas T. Coar, Esq., Surgeon.

DAVIES. On July 12th, Agnes Eleanor, youngest daughter of *Wm. Davies, Esq., York Town, Surrey.

EDWARDS. On July 8, at Worthing, aged 21, Louisa, only daughter of Charles F. Edwards, Esq., late chief Medical Officer in the Convict Establishment, Bermuda.

MILSON. On July 11th, aged 69, Rachel, widow of Richard O. Milson, Esq., Surgeon, of Heaton, Yorkshire.

O'FLAHERTY. On July 12th, at 2, Baker Street, Portman Square, aged 34, Margaret Ann, wife of Thomas A. O'Flaherty, M.D.

PARDEY, Charles, M.D., at Southampton, on July 10.

SPEAR, William, M.D., at Totton, Southampton, aged 45, on June 12.

TAYLOR. On July 10th, aged 2, Edith, daughter of Alfred A. Taylor, Esq., Surgeon, Queen Street, Cheapside.

WARE, Samuel, Esq., Surgeon, at Chard, aged 64, on July 9.

NAVAL LUNATICS. The insane patients at Haslar have been transferred to the Naval Lunatic Asylum at Yarmouth.

A MEDICAL KNIGHT. Dr. Gray, a medical man who has taken a prominent part in the politics of the day in Ireland, has been knighted by the Lord Lieutenant.

BEQUESTS. Lady Poltmore has left £500 to the Devon and Exeter Hospital. Mr. W. G. Gibson has by will left £5,000 for the construction of an hospital at Saffron Walden.

THE HOSPITAL OF LA CHARITÉ is to undergo a complete transformation. The works have been commenced under the direction of M. Labrousse, the architect of the Administration of Public Assistance, and are to cost 2,000,000 francs.

ACCIDENTAL DEATH INSURANCE COMPANY. The annual report of this company shows very satisfactory progress in its business. The premiums received from all sources during the year 1862 amount to upwards of £65,776, against £47,878 in 1861. The claims during the year were £34,579: 4: 7, giving a total since the commencement of the society of £215,579.

SANITARY CONDITION OF THE INDIAN ARMY. In the House of Commons, in reply to Mr. Coningham, Sir C. Wood said that already certain improvements had been introduced into the arrangements for preserving the health of our Indian army, and that still more effective measures remained to be taken in pursuance of the recommendations of the sanitary commissions.

PRESENTATION TO R. H. BOWNESS, M.D. At the anniversary of the "Rainbow" Lodge of the Independent Order of Oddfellows, celebrated at Poulton-le-Fylde, on the 8th inst., a valuable testimonial in the shape of a handsome gold watch was presented to R. H. Bowness, M.D., in recognition of his unceasing interest in the welfare of the members of the society during a period of eighteen years. In presenting it the speaker said, that he trusted the doctor would not value the testimonial for its intrinsic worth, but as a memento of their respect for him, and an acknowledgment of the zealous and faithful performance of his professional duties.

MEDICAL REGISTRATION ASSOCIATION. The following contributions have been received since our last announcement, towards the liquidation of outstanding debts amounting to £200, and for which the creditors are seeking to make the treasurer, John Lavies, Esq., liable: it should be stated that he is already fifty pounds out of pocket. Dr. G. Budd, £2: 2; Dr. J. Watson, £2: 2; Dr. J. Duncan, £1: 1; Dr. Smiles, £1: 1; Dr. G. Tebay, £1; M. Ware, Esq., £1: 1; E. Pearse, Esq., £1: 1; F. Price, Esq., Deptford, £1: 1; J. White, Esq., £1: 1; W. U. Whitney, Esq., £1: 1; E. A. Newton, Esq., 10s. 6d.; Dr. Riding, 10s.; Dr. A. B. Duncan, 10s. 6d.; H. W. Statham, Esq., 10s.; P. Marshall, Esq., 10s.; T. C. Jackson, Esq., 10s.; Dr. H. C. Andrews, 10s.; George Booth, Esq., £1: 1; H. Hancock, Esq., £2: 2; H. Harris, Esq., £2: 2; Dr. Routh, £2: 2; W. A. Harrison, Esq., £1: 1; Dr. Semple, 10s. 6d.; Dr. A. Clark, 10s. 6d.; Dr. Richards, 10s. 6d.; Dr. Morgan, £1; C. Ridley, Esq., £1: 1; Dr. Frazer, 10s.; T. Hazel, Esq., 10s. 6d. Subscriptions should be sent direct to John Lavies, Esq., 5, Great George Street, Westminster, in aid of the Fund.

A TRANSATLANTIC MUSEUM. Washington letters state that there are at present at the Army and Medical Museum in Washington about 1,000 surgical specimens, 150 medical specimens, and 300 specimens of missiles used in warfare. A portion of the bone, both sides of the fracture, when amputations are performed by army surgeons, have to be sent to the Surgeon-General for inspection, and the specimen is placed in the museum, with the surgeon's name attached to it, as a record of

either the good or bad operation performed. This museum, it is said, already combines more surgical and medical specimens than any museum of the kind in Europe. The specimens are illustrative of gunshot wounds, shell and sabre wounds, injuries and affections. Accompanying such specimens is a description stating where the wound was received, how treated, the result, and by whom treated. Mr. Corcoran's spacious building near New York Avenue has been secured, and is being fitted up for the new medical museum. (*American Paper.*)

KING'S COLLEGE. The distribution of prizes and rewards to the students in medicine, general literature, and the applied sciences took place at King's College on June 26th; the Bishop of Lichfield in the chair. The following were the successful candidates in the medical department:—*Scholarships*: Edward Harley, senior, scholar; Charles Berrell, 2nd year scholar; Robert S. Smith, Charles Kelly, and Edward C. Evans, junior scholars; Edward Harley, William L. Canton (since deceased), Charles Kelly, Samuel H. Smith, Robert S. Smith, Frederick Marshall and Charles H. B. B. Allen (equal), Warneford scholars. *Prizes and Certificates of Honour*:—*Winter Session, 1862-63.* *Warneford Prizes*: Edward Liveing Fenn, 1; Charles Berrell, 2. *Leathes Prizes*: William T. T. Dyer, 1; Alfred J. Matthew, 2. *Divinity Prizes*: John S. Ferris, 3rd year; Richard W. Haines, 2nd year; Charles Kelly, 1st year; *Gill Prize*: John Oakley. *Todd Clinical Prize*: Henry L. Kempthorne. *Anatomy*: Thomas Clay Shaw, B.A., and Miles Astman Wood (equal), prizes; Charles W. Philpot, Thomas Howells, and Edward L. Fenn, 2nd year, Walter O. Withers, Samuel H. Smith, and Geoffrey Hett, 1st year, certificates of honour. *Physiology*: Walter T. P. Wolston, prize; Thomas C. Shaw, B.A., and Paris Bradshawe, 2nd year; W. O. Withers and George A. Brown, 1st year, certificates of honour. *Chemistry*: C. W. Philpot, 2nd year, prize; T. C. Shaw, B.A., certificate of honour; G. A. Brown, 1st year, prize, and Frederick Marshall, 1st year, certificate of honour. *Medicine*: Henry L. Kempthorne, prize; Herbert Nankivell, Joseph Groves, B.A., and Revett C. Powles, certificates of honour. *Surgery*: H. Nankivell, prize; R. C. Powles and John S. Ferris, certificates of honour. *Clinical Medicine*: Joseph Groves, B.A., prize. *Clinical Surgery*: H. Nankivell, prize; J. S. Ferris and James Jones, certificates of honour. *Summer Session, 1862.* *Practical Chemistry*: Charles Berrell, prize; John B. Welch, and Richard W. Haines, certificates of honour. *Forensic Medicine*: J. S. Ferris, prize; Edward Harley, and H. Worms, certificates of honour. *Botany*: William T. T. Dyer, prize; Frederick Noyes, C. W. Philpot and Thomas Bond, certificates of honour. *Midwifery*: Robert Meadows, prize; E. Harley, and Gwynne H. Harries, certificates of honour. *Materia Medica*: T. C. Shaw, B.A., prize; R. W. Haines and J. B. Welch, certificates of honour. *Comparative Anatomy*: R. C. Powles, prize; W. T. Buckle, certificate of honour. *Clinical Medicine*: William C. Smith, prize; Edward Harley, certificate of honour. *Clinical Surgery*: John S. Wesley, prize; Edward Bellamy, certificate of honour. The following are the names of those elected associates of King's College. John Bubb, Edward Harley, John Henry Hartley, Robert Lewer, Charles Samuel Matthews, William J. Smith, and William N. Thursfield.

MIDDLESEX HOSPITAL MEDICAL SCHOOL. The distribution of prizes took place on June 29th, 1863; Sir Stuart Alexander Donaldson in the chair. The following prizes and certificates of honour were awarded to First Year's Students:—*Summer Session, 1862.* *Prizes*, Mr. Henry Cribb, Bishopstortford; Mr. Edward Norton, Birmingham (equal). *Certificates of Honour.* *Materia Medica.* Mr. Philip Cribb; Mr. E. Norton; Mr. Robert King, Macclesfield. *Botany.* Mr. H.

Cribb; Mr. E. Norton; Mr. R. King. *Practical Chemistry*. Mr. H. Cribb; Mr. E. Norton. *Winter Session*, 1862-63. *First Prize*, Mr. Vincent Edmund Noel, Devonport; *Second Prize*, Mr. Charles Wills, Narborough, Leicestershire. *Certificates of Honour*. *Anatomy*. Mr. V. E. Noel; Mr. C. Wills; Mr. W. Griffith Jones, Llanelli, Carmarthenshire; Mr. John Swindale, Appledore, Devon; Mr. Alfred Jones, Undy Vicarage, near Chepstow. *Physiology*. Mr. V. E. Noel; Mr. J. Swindale; Mr. C. Wills; Mr. W. G. Jones; Mr. Thomas W. Gascoyne Palmer, Cheltenham. *Chemistry*. Mr. V. E. Noel; Mr. C. Wills; Mr. J. Swindale. The following prizes and certificates of honour were awarded to Second Year's Students:—*Summer Session*, 1862. *First Prize*, Mr. John Ablewhite Smith, Louth; *Second Prize*, Mr. Alfred Brend, Bideford. *Certificates of Honour*. *Midwifery*. Mr. J. A. Smith; Mr. A. Brend. *Medical Jurisprudence*. Mr. J. A. Smith; Mr. A. Brend. *Winter Session*, 1862-63. *First Prize*, Mr. George Clements, Brixham; *Second Prize* (which for the fulness of his clinical reports has been made equal to the first prize), Mr. Henry William Freeman, Bideford. *Certificates of Honour*. *Medicine*. Mr. R. King; Mr. H. W. Freeman; Mr. G. Clements. *Surgery*. Mr. G. Clements; Mr. H. W. Freeman; Mr. R. King. *Anatomy*. Mr. G. Clements; Mr. H. W. Freeman; Mr. R. King; Mr. Edward J. Armstrong, Dowlais; Mr. Charles E. H. Rogers, Westmeon, Hants; Mr. Horace Basan, London. *Physiology*. Mr. G. Clements; Mr. H. W. Freeman; Mr. R. King; Mr. C. E. H. Rogers. *Pathology*. Mr. G. Clements; Mr. R. King; Mr. H. W. Freeman. *Prize offered by the Medical Society for the best Paper of the Session*. (In consequence of the excellence of two of the papers, a prize has been awarded to the author of each) Mr. George Pyle, Amesbury; Mr. James Smith Turner, London. The following prizes were awarded to Third Year's Students:—*Clayton Prize for Comparative Anatomy*. Mr. S. Seabury Edwards, Hampstead. *Governors' Prize for the best Report in Clinical Medicine and Clinical Surgery*. Mr. J. A. Smith. *Honorary Certificates of General Good Conduct and Diligence*. Mr. Frederick H. Alderson; Mr. A. Brend; Mr. William G. Curgenvin; Mr. George H. Clifton; Mr. John Drust; Mr. Charles Hinds; Mr. Thomas Lucas; Mr. Charles J. Pyle; Mr. George Pyle; Mr. J. A. Smith; Mr. William D. Stone; Mr. Frederick J. Tucker; Mr. James S. Turner; Mr. William J. Wey; Mr. Charles H. Weld; Mr. Albert Weaving.

MEETING OF MEDICAL MEN OF BEDFORD AND ITS NEIGHBOURHOOD. A meeting of the medical men of Bedford and its vicinity was held at the George Hotel, Bedford, on Monday, July 6th, at two o'clock; R. Couchman, Esq., Mayor of the borough, in the chair. The meeting was called on account of the alleged fact that Dr. Burrows and Dr. Wharton had met in consultation with Mr. Coombs. It was stated that Mr. Coombs had never given a satisfactory disavowal of the practice of homœopathy, and that Dr. Wharton still continued to meet him in consultation. Mr. Coombs had privately stated that he does not practise homœopathy, and had intimated his willingness to give any pledge required of him for the future. The meeting resolved to request of Mr. Coombs "a distinct pledge in writing to the chairman that in future he will not practise homœopathy; and that he will discontinue using the M.D. from a homœopathic college." A resolution was also passed:—"That it is the opinion of this meeting that members of the profession should refuse to meet in consultation anyone who meets in consultation with homœopathic practitioners." In consequence of some statements made by Mr. Thurnall and Dr. Barker, the meeting passed a resolution, "That the practice of medicine by men, or their wives, calling upon new comers in the town or neighbourhood, with the view of either directly or indirectly securing them as patients, is derogatory to the profession; and

that the present meeting earnestly recommends that in future the strictest regard to professional etiquette should, on all occasions, be observed by members of the profession." Mr. Carter having alluded to the fact that one practitioner was present who, as a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, used the title of M.D.; and that such license does not give a right to the use of such title, Mr. Hacon at once pledged himself not to use the title of M.D. for the future. Dr. Barker said that sufficient had come under the notice of the meeting to show the necessity of a society which should take cognisance of professional irregularities—in fact, of a court medical. He proposed that a Bedford Medico-Ethical Society should be established, to consist of a president, a secretary, and three members of committee, the president and secretary to be chosen annually, and one member of committee to retire annually in rotation. If any member of the profession in the town or county had any reason to complain of the conduct of any other member, he should communicate with the secretary, who should call a meeting of the committee. If the committee deemed the alleged charge of sufficient importance, a meeting of the entire profession to be called for the purpose of settling the matter in dispute. A resolution forming the society was passed; Mr. Couchman was elected president, Mr. Carter secretary, and Dr. Wharton, Mr. Thurnall, and Mr. C. Robinson, the first members of the committee. Dr. Prior's name was afterwards substituted for that of Dr. Wharton. At this stage of the proceedings, Mr. Coombs entered the room. The chairman explained to Mr. Coombs the object of the meeting; and disclaiming on the part of himself and of every member present any personal feeling, or any other motive than the purest desire to uphold the honour of the profession, read to him the first resolution that had been passed. Mr. Coombs expressed his willingness to give the required pledge in writing, as far as the practice of homœopathy is concerned; but refused to discontinue the use of the M.D. degree. It was then resolved:—"That this meeting will not recognise Mr. Coombs's repudiation of homœopathy, unless he at the same time repudiate the degree of M.D. obtained from a homœopathic university." Mr. Coombs was urged by the chairman and by several members of the meeting to give up the use of the homœopathic M.D.; but he still maintained that he had made all necessary concessions. The following resolution was then unanimously, although reluctantly, passed:—"That this meeting congratulates Mr. Coombs on his repudiation of homœopathy as a practice; but regrets that, in consequence of his not agreeing to resign his title of M.D. obtained from a homœopathic college, they cannot consent to meet him in consultation."

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

SATURDAY. Royal Botanical Society.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—JULY 11, 1863.

[From the Registrar-General's Report.]

		Births.	Deaths.
During week.....	{ Boys .. 959 Girls .. 994 }	19.3	12.87
Average of corresponding weeks 1859-62		17.77	11.70
<i>Barometer:</i>			
Highest (Fri.) 30.198; lowest (Tu.) 29.890; mean, 30.093.			
<i>Thermometer:</i>			
Highest in sun—extremes (Fri.) 124 degs.; (Sun.) 99 degs.			
In shade—highest (Fri.) 83.5 degs.; lowest (Fri.) 51.1 degs.			
Mean—65 degrees; difference from mean of 43 yrs.+3.4 degs.			
Range—during week, 32.4 degrees; mean daily, 26.8 degrees.			
Mean humidity of air (saturation=100), 70.			
Mean direction of wind, N.E.—Rain in inches, 0.00.			

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
 TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
 WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
 THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
 FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
 SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

ERRATUM.—Mr. Maunders, we have been requested to state, is not a candidate for the vacant office at the Lock Hospital.

MR. W. R. ROGERS.—The paper of Mr. Martyn on "Housemaid's Knee" may be found in the JOURNAL of November 23rd, 1861.

Syntax in St. George's Hospital.—We have been asked the meaning of the following choice specimen of *reasonable* English. It is, we are told, a Law which has just been passed by the Governors of St. George's Hospital.

"1a. No surgeon shall hold office beyond a period of twenty years from the date of his last election (but this law shall not affect any surgeon elected before the fifth day of July, One thousand eight hundred and sixty-one), when he shall become a consulting-surgeon."

According to the words of the Law, it is manifest that the present surgeons of St. George's Hospital became consulting-surgeons at the date of their election as surgeons! No medical man, we are satisfied, is responsible for such a composition.

COMMUNICATIONS have been received from:—Dr. H. HYDE SALTER; Mr. C. F. MAUNDER; Dr. W. R. ROGERS; Dr. HENRY GOODE; Dr. H. BARKER; Dr. T. J. WALKER; Dr. KIDD; Mr. W. CADGE; Dr. MAYO; Mr. T. O'CONNOR; Dr. VOSE; Mr. RICHARD GRIFFIN; Mr. HIGGINBOTTOM; Mr. H. LEE; Dr. GIMSON; Mr. W. EDDOWES; Dr. EDWARD COPEMAN; Mr. G. REED; Mr. R. B. CARTER; and Mr. BREMIDGE.

BOOKS RECEIVED.

1. Lectures on Surgical Pathology delivered at the Royal College of Surgeons of England. By James Paget, F.R.S. Revised and Edited by William Turner, M.B. London: 1863.
2. Breithwaite's Retrospect of Medicine. London: July 1863.
3. Half-Yearly Abstract of the Medical Sciences. London: July 1863.
4. Quarterly Journal of Microscopical Science.
5. On Peculiar Appearances exhibited by Blood-Corpuscles under the Influence of Solutions of Magenta and Tannin. By W. Roberts, M.D.
6. Small-Pox and its Prevention. By W. Newman, M.D. 1863.

ADVERTISEMENTS.

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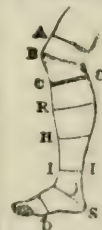
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Remarks

ON

EXTREMES IN PRACTICE.

BY

THOMAS MAYO, M.D. F.R.S.

ONE of the most active and thoughtful Fellows of our College, Dr. Lionel Beale, has published in the number of this JOURNAL for July 4th two interesting cases, well calculated to elicit from me a few more remarks on the subject of "Extremes in Practice". This expression, which I used in my last contribution, certainly was then used as implying a something in excess and overdone. But it must be remembered that, unless this view be cautiously adopted in any given case, the imputation which it thus conveys, may be extremely uncandid. The so-called extremes of practice of one age may be the normal and moderate practice of another; and the physician, who is blamed for extreme practice in the first, may be justly held up to praise in the second age for philosophical boldness.

The extreme in practice questionable in these two cases may be considered twofold—an excessive avoidance of depletory measures; and an excessive amount of stimulation by brandy, etc. The question, whether the first of these excesses be imputable here, is suggested by the author. In my opinion, this question is applicable only to the second; that is to say, to the use made of alcoholic stimulants. That a commissioner, who had been much exposed to wet and cold, his urine with a trace of albumen, his heart's action feeble after a loss of only five ounces of blood, labouring under symptoms of pulmonary infarction in a very high degree, should not require further sanguineous depletion, and should require by the seventh day after admission to the hospital, which may have been a more advanced day of the disease, a very plentiful supply of stimulants,—all these suppositions may be conceded, certainly without the concession implying deficient abstraction of blood. But the amount of brandy given (twelve ounces in twenty-four hours), and the prosperous termination of the case under this kind and amount of treatment, is certainly an extreme in practice, which we ought to regard with a very cool judgment. Large statistics are wanted on this subject, and I have no doubt may be found. The different amount of susceptibility of irritation from stimulants in different persons is very remarkable. Whether the annals of King's College can confirm the value and harmlessness of intense alcoholic stimulation or not, in one respect the public is greatly indebted to that school; namely, the making good its claims to be considered a far *safer* remedy than had ever been before laid down and proved. This point is certainly made good; but it does not settle the whole question, whether the amount of stimulation was expedient. In the above case, which is much too briefly given, "some might consider", Dr. Beale observes, "that this man ought to have been bled freely, in consequence of the low delirium, the motions and urine being passed under him, the great oppression of breathing, which was 70 in the minute,

with congestion of the superficial vessels and profuse sweating." I do not think we have so far oscillated back into the depletory excesses of former days as to consider the abstraction of blood requisite under these circumstances.

With respect to the second case of Dr. Beale, in which also he discovers some pneumonia, there is no evidence in his account of its treatment of inadequate depletion. The small loss of blood, only four ounces, to which it was subjected, seems as much as it would require on any theory of the present day; but certainly there is greater evidence of "excessive stimulation", to use Dr. Beale's words. Under this treatment (24 oz. of brandy in twenty-four hours), according to him—1. The pneumonia does not extend. 2. The embarrassment of respiration is not increased; nor is the breathing increased in frequency. 3. The inflammatory products are absorbed, and free excretion goes on, etc. I refer my reader to Dr. Beale's description of this case. But was it pneumonia? The case began with rheumatic pains; then came rubbing sound and cardiac dulness; then "dulness and bronchial breathing from the spine of the scapula downwards to the base of the left lung"; "breathing in front of both lungs good; pulse 132, feeble, but regular; respiration 43, very short; no delirium." Whether these and the other symptoms given by Dr. Beale justified his treatment—besides large nutrition, twenty-four ounces of brandy every twenty-four hours for seven days—is a question certainly not settled by the facts adduced by Dr. Beale. Still the treatment was borne, and the progress of the case under it was successful.

Some of my cotemporaries may remember a most interesting case of an eminent physician, not absolutely irrelevant to the subject which I am considering. It commenced with very intense pain in the thorax. This was relieved by a large dose of hydrochlorate of morphia and five grains of calomel. Then came dulness of a portion of the thorax, lasting many days, and attended by occasional spasms of intense dyspnoea, threatening suffocation; and, during the latter part of the case, copious sputa of *jus de pruneau* expectoration. The case was, in fact, pulmonary apoplexy. The patient's strength was well maintained by some stimulants and by nutrition. The treatment was hydrargyrum cum creta continued to salivation; and I can well remember the immediate abatement of the formidable spasms and general improvement as soon as the gums became affected. There was want of power in this case. Would excessive stimulation by brandy have diminished danger and hastened recovery? The annals of King's College would probably contribute to settle this all-important question in a large group of cases, allowance being made for the varying conditions of air in different hospitals and localities. Certainly we are indebted to Dr. Lionel Beale and others for raising the important question here involved, and, at all events, for proving an apparent amount of safety and value in this practice, hitherto, I believe, unsuspected by experienced practitioners. One thing appears to me very probable, that, in many acute cases, bolder stimulation than has hitherto been thought safe may be applicable; and that in many cases it would be advantageous to precede such treatment by some abstraction of blood, which in the same cases might otherwise be mischievous.

A Lecture

ON THE

ACUTE NECROSIS OF GROWING BONES.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN.

BY

THOMAS SMITH, F.R.C.S.,

ASSISTANT-SURGEON TO THE HOSPITAL.

[Continued from page 52.]

PASSING by the various affections of bones for the present, I wish to speak of the acute necrosis of the long bones of children. This disease, from its frequent connection with general pyæmia and various local manifestations of general blood-poisoning, has attracted the attention of several physicians and morbid anatomists; and has of late been ably investigated in its pathological bearings by Mr. Stone, Dr. Bristowe, Dr. Wilks, and Dr. Kirkes; yet, since it has until quite recently met with so little recognition in the standard surgical works of the day, I shall venture to tell you all I know of the disease.

Through the kindness of friends, from published accounts, and from my own experience, I have collected twenty-three cases of this disease; and, as no description of mine can so clearly convey to your minds a notion of its character as an account of a case, I will relate to you some instances of the disease.

CASE I. Elizabeth Wootton, aged 3 years and 6 months, on March 8th, 1862, was noticed by her mother to walk lame. On examining the right leg, she screamed with pain; for ten days she continued getting worse; the thigh in the meantime became greatly swollen. On March 18th, the child came to my out-patient room. She was suffering under severe constitutional disturbance; the thigh was much swollen, tense, whitish in colour, and shining; the lower end of the femur was greatly enlarged and exquisitely sensitive to pressure. A poultice was applied and support was given; and three days afterwards she was admitted into the Children's Hospital, under my care. At this time, the thigh had still further increased in size, and the child was very ill, requiring stimulants and support. There was no sense of fluctuation over any part of the femur. On March 29th, an incision was made over the front of the middle of the thigh down to the bone, which was quite bare, but not rough. No pus escaped; but bloody serum in considerable quantity. No relief followed the incision; the limb remained as much swollen as before.

After a few days, a little bloody pus was discharged from the wound. The child took freely of wine, brandy, beef-ten, and eggs; but gradually sank, and died April 17th, a month after the time when she first came under observation.

Post Mortem Appearances. ten hours after death. There was found to be complete necrosis of the whole shaft of the right femur, excluding the epiphyses. The bone was entirely denuded of its periosteum, except the upper inch of the back of the femur, at the commencement of the linea aspera, over the part of bone bounded by the divergence of that line above. Between the periosteum and the bone, there was a collection of dark grumous blood—no pus. The upper epiphysis was loosely connected with the shaft of the bone, but was quite healthy, as also was the hip-joint. The lower epiphysis was separated from the shaft, but was itself

natural in appearance, as also was the knee-joint. The surface of the bone generally appeared white, and was hard; but just the lower end of the shaft where it joined the epiphysis, was softened and shrunken in its transverse measurement. The upper lobe of the right lung was completely solidified. The left upper lobe was solidified at its anterior part; its surface was finely nodulated, as if exudation had taken place in separate and distant lobules.

The heart was healthy; the liver fatty; the brain was not examined. The other organs were healthy. The bone has been preserved; and its present appearance confirms my description of it.

For the following cases, I am indebted to Mr. Marsh, the resident house-surgeon of the Children's Hospital.

CASE II. M. E., aged 11, a sickly child, was admitted May 30, 1862, into St. Bartholomew's, under Mr. Skeay. A week before admission, the left leg over the tibia became swollen and painful. She had been treated for rheumatism before admission. When admitted, she was suffering from severe constitutional disturbance; the left leg and knee were swollen, very painful, and covered by a mottled redness. An incision was made over the tibia; about an ounce of ill-formed matter was let out; and the bone was found bare as far as the probe would reach. Wine and stimulants were administered. The subsequent course of the case was that large collections of matter formed, and were let out in the lower part of the thigh and from around the knee. The knee-joint remained much distended by fluid, though no supuration occurred in it. Two months after her admission, as she had fallen into a state of great exhaustion from the discharge, the limb was removed by Mr. Savory, just above the middle of the thigh; after this she made a good recovery. On examination of the limb, the tibia was found bared of its periosteum, and necrosed in the whole length of its shaft.

CASE III. A boy, aged 13, struck his left knee violently against a piece of wood. This was followed by severe pain, and by general febrile symptoms, with pain in the limb and joints generally. He was admitted into St. Bartholomew's Hospital eight days after the accident, in a typhoid condition, with symptoms of pericarditis, the left knee-joint being much swollen, and other joints being tender on pressure. Next day he died.

Post Mortem Examination. The periosteum of the left femur was completely separated from the lower three-fourths of the bone, except at the linea aspera; beneath it was a large quantity of brown gruel-like fluid, which was also largely infiltrated among the soft parts of the thigh. The bone itself on section looked natural. The right elbow and left hip-joints contained a turbid oily fluid; the other joints were healthy. The superficial and deep veins of the thigh were plugged by coagula, which in places had begun to soften. Secondary deposits were found in the lungs; and the pericardium showed traces of recent acute inflammation.

CASE IV. A boy, aged 16, was kicked on the shin, August 27th, 1862. Three days afterwards, he was admitted under Mr. Skeay into St. Bartholomew's, with symptoms of general febrile disturbance. The injured leg was swollen, hot, red, and acutely sensitive to pressure from just below the knee to just above the ankle. There was no enlargement of either the knee or ankle joints. An incision was made over the tibia, and about half an ounce of ill-formed bloody and offensive pus was let out. The periosteum was found largely separated from the bone. Symptoms of pericarditis came on, and the boy died the next day—seven days after the injury.

Post Mortem Appearances. Indications of recent acute pericarditis were found. There were numerous secondary deposits in the muscular substance of the heart, in

the lungs, and in the kidneys. The periosteum was separated from the tibia on almost the whole of its anterior aspect, and to a considerable extent from the sides and back of the bone. Bloody serum was infiltrated among the tissues of the limb, and surrounded the shaft of the bone; which latter was inflamed and roughened on its anterior aspect.

CASE V. A boy, aged 8, knocked his shin against a coal-scuttle. Two days afterwards, he had rigors and pain in the leg, and general febrile disturbance. The third day he complained of a pricking pain in the left side of his chest. He was admitted into St. Bartholomew's Hospital, September 18th, 1862, under Mr. Skey, with symptoms of acute pleurisy. The upper half of the left leg was swollen, red, and tender. An opening was made, and two drachms of sanious pus was let out; the bone was found bare beneath. He was ordered stimulants. After a while the discharge from the wound became very profuse, and he sank exhausted, six weeks after his first seizure.

Post Mortem Appearances. A large collection of pus was found in the pericardium; another, smaller, between the spleen and diaphragm; a third, beneath the recto-vesical pouch of the peritoneum. The tibia, which I have before me, was found separated almost entirely from its periosteum, except at its articular ends; a fissure may be seen running obliquely down the bone, as if it had been fractured. Here and there the periosteum is separated from the bone by recent deposits of vascular and semi-ossified lymph, which adhere closely to both it and the bone. There is a circumscribed spot of ulceration just below the upper epiphysis of the tibia. The deposits of new bone upon this tibia indicate, as I believe, points where the periosteum was originally separated from the bone, but where the bone has not lost its vitality, they illustrate the rapidity with which new bone may be formed from the lymph effused by the vascular periosteum of a child.

CASE VI. A schoolboy, aged 9, fell on his left shoulder, or struck it, on February 26th. He made no particular complaint, but used it in the ordinary way, until March 1st. He then complained of pain about the shoulder, and felt unwell; took no food, and was dispirited. He was at once sent to bed; and Mr. C. Robinson saw him, and ordered four leeches to the injured part. There was no sign of fracture, but there was tenderness over the whole length of the clavicle and below it downwards towards the chest—it was firm and oedematous. A puncture was made half an inch below the clavicle; blood only escaped, and no relief followed. On March 3rd, Mr. Paget (to whom I am indebted for this account), saw him, and found considerable swelling over and about the whole length of the left clavicle; the swelling was ill-defined at its borders, and extended up into the neck, towards the nipple; but was not perceptible in the axilla; it was firm, doughy, and oedematous. The surface of the skin had a widely diffused pinkish tinge; poultices had been freely applied; the only part that was tender to pressure was along and over the line of the clavicle. There was much constitutional disturbance; the accompanying fever was not of a low type; great restlessness and wandering at night. He had had no shivering at any time. Leeches were ordered, followed by fomentations and poultices. On March 4th, the patient was better, though the swelling had gradually extended upwards towards the neck and chin. Next day, an incision over the clavicle, let out a teacupful of turbid pus, and gave the patient much relief; but the same evening his pulse rose; he became irritable and light-headed; his breathing more hurried; teeth, lips, tongue, and skin dry. The swelling over the clavicle was much diminished and began to discharge pus freely. Wine, opium, and support were freely administered, but he gradually sank, and died on March 9th, nine days after the commencement of his illness. Before death, the whole

of the swelling had subsided, the discharge being copious to the last. No *post mortem* examination was allowed.

The foregoing case—for the particulars of which I am indebted to Mr. Paget—I believe to have been an instance of acute necrosis of the clavicle, with death from pyæmia; similar to the case to which I shall next allude.

CASE VII. Mr. Jonathan Hutchinson presented this specimen, which I have before me, to the museum at St. Bartholomew's; it is numbered in the catalogue (258 series L.) It is a clavicle with the neighbouring soft parts. The bone is dead, bare, rough, and is completely separated from its periosteum and its outer epiphyses. It was surrounded by bloody pus. It was removed from a boy, aged 5, who, after a fall on the shoulder, suffered from swelling, pain, and great tenderness over the clavicle. He died eleven days after the injury, and was found to have suffered from pericarditis and pleurisy.

The following cases I have extracted from the *Guy's Hospital Reports* for 1861; they are to be found in an article on Pyæmia by Dr. Wilks.

CASE VIII. James H., aged 15, fell and struck his right thigh; this was followed by swelling, and four days afterwards, he entered Guy's Hospital. Two days after admission, he was seized with rigors and pain in the side, swelling and pain in the joints. He died on the twenty-fourth day of his illness.

Post Mortem Examination. The soft parts of the thigh were infiltrated with pus; the femur was bare; the knee-joint containing pus; there was abundant evidence of general pyæmia.

In this case, the disease seems to have concentrated itself about the lower end of the femur and its lower epiphysis; not, as is more usual, confining itself to the shaft of the bone. The following cases afford instances of the same.

CASE IX. Thomas M., aged 16, was admitted with a swelling around the thigh, which was supposed to arise from injury, and from which the lad died in seventeen days.

Post Mortem Examination. There was an abscess in the thigh surrounding the lower parts of the bare femur, and involving the knee-joint; and abundant evidence of general pyæmia.

CASE X. Henry B., aged 16, struck his right knee against an anvil. A week afterwards, it began to pain him, and he felt ill. The knee began to enlarge; an abscess opened near it, and he died with symptoms of general pyæmia, five weeks and three days after the injury.

Post Mortem Examination. An abscess was found in the right knee-joint; the bones were bare; and there were evidences of pyæmic deposits in the lungs, heart, kidneys, and elsewhere.

The following five cases are taken from a paper by Dr. Bristowe in the *Transactions of the Pathological Society* for 1862. Dr. Bristowe states that, "in most of them the bones were extensively affected, often the whole shaft of one of the long bones being necrosed. In consequence of the rapid course of the disease, little beyond complete detachment of the periosteum, with suppuration around and sometimes within the shaft, had occurred. In one instance, however, in which the duration of the disease had been unusually long, a small quantity of new bone had been already deposited; in no case were the joint-ends materially affected."

CASE XI. A woman, aged 29, suffering great privation, was attacked with pains in the thigh, followed by oedematous, doughy, and pallid swelling. She was attacked

with rigors and delirium, pulmonary complications occurred, and in seventeen days she died.

Post Mortem Examination. The lower two-thirds of the femur were found almost completely denuded of the periosteum, and surrounded with thick pus. At one point, a good sized patch of soft granular new bone was found adhering to the shaft; the epiphyses and neighbouring joints were healthy; the medullary canal of the bone was full of puriform fluid. There were evidences in the body elsewhere of general pyæmia.

This case is worth noticing, since it is singular in respect of the age of the patient attacked; indeed, it is the only instance I have met with of a patient suffering from this disease after the complete ossification of the long bones.

CASE XII. A boy, aged 15, was admitted into St. Thomas's Hospital, his left knee being swollen, red, and tender, supposed to be due to cold caught after exposure to the heat of a furnace. The swelling extended downwards towards the leg. A large quantity of pus was let out from over the tibia, the upper part of the shaft of the bone being completely denuded of its periosteum. Symptoms of pyæmia set in, from which, however, he seemed to recover; finally, the whole shaft of the tibia became necrosed, and the knee-joint involved; and the boy died from phthisis, five months after his admission. No *post mortem* examination was allowed.

CASE XIII. A boy, aged 5½, after exposure to cold, had swelling and pain on deep pressure over the upper part of the right thigh, followed by abscess over the parotid region and left wrist. The femur was cut down upon, and pus let out from beneath its periosteum. He suffered from severe constitutional irritation, and died ten days after the commencement of his illness.

Post Mortem Examination. Almost the whole of the shaft of the left femur was found bare and bathed in pus; the cancellous texture of the bone contained purulent fluid; the pterygoid process of the sphenoid bone was necrosed, and formed the centre of an abscess. There were evidences of general pyæmia.

CASE XIV. M. G., a girl, aged 11, sprained her right shoulder, which became painful and swollen, and very tender. The swelling was in the region of the deltoid muscle. The child being very ill, a knife was pressed down to the bone, and a large quantity of pus was let out from beneath the periosteum. A considerable portion of the shaft of the bone below the anatomical neck was found bare. From this time her condition improved, and eight months after her admission, a large sequestrum was removed from the outer side of the shaft of the humerus, just below the neck. She was discharged cured, nine months after her admission; a result which, I think, we may in a measure attribute to the early recognition of her ailment, and the prompt treatment adopted.

CASE XV. A boy, aged 12, from no apparent cause, was attacked with pain in the right thigh, knee, and hip; there was no swelling nor redness. He was treated for rheumatism. The pain increased in his thigh; but on the day before his death, he got up and dressed himself. Next day, he visited St Thomas's Hospital, and died in the out-patient's room, after eight days illness.

Post Mortem Examination. The upper third of the right femur was found bare and bathed in sanious pus, collected between the periosteum and the bone. The diseased portion of bone was irregularly limited below; above, it was bounded by the capsule of the hip-joint. The cancellous structure of the bone presented here and there distinct accumulations of pus. Secondary abscesses and deposits were found in various parts of the body, giving indications of pyæmia.

I would point to this case as one typical of the disease under consideration; the early symptoms

resembling rheumatism, the disease with which acute necrosis is most often confounded; and I would caution you of the difficulty of recognising suppuration in an early stage around the shaft of the femur, particularly about the upper part of the bone; since there the covering of soft parts is so dense that it is long before swelling, redness, or fluctuation, make their appearance.

Of the resemblance of this disease in its early stage to acute rheumatism, the following case affords another example. It is taken from an account of some cases of Acute Necrosis followed by Pyæmia, by Mr. W. H. Stone (*Medical Times and Gazette*, 1859, p. 55).

CASE XVI. A healthy well formed girl, a domestic servant, aged 15, five days before her admission into St. Thomas's Hospital, began to suffer from severe pain in the left forearm, especially on its posterior aspect; it quickly began to swell. Next day, she was seized with rigors, vomiting, pain in the chest, and cough—with delirium at night. On admission, her general aspect was that of a case of rheumatism, with cardiac complication. The forearm was doughy, swollen, slightly red, in patches, tender on pressure; the joints were unaffected. She died on the day of her admission, on the sixth day of her illness.

Post Mortem Examination. The lower third of the left radius, with the exception of its epiphysis, was separated from its periosteum and surrounded with thick pus. The wrist-joint and epiphysis of the radius were healthy. There were indications of pyæmia in the lungs, pleura, pericardium, kidneys, and elsewhere.

CASE XVII. The following case is from the same source as the above. A boy, aged 15, injured his left leg in a fall down stairs; an abscess formed over the tibia at the seat of injury, and from this there was a profuse discharge. He was admitted a month after this injury into St. Thomas's Hospital, with symptoms of typhoid fever. The leg was swollen and tender, and a probe, passed into the opening over the bone, could be passed upwards and downwards for its whole length. Diarrhœa came on, and he died, forty-three days after the injury.

Post Mortem Examination. The whole shaft of the tibia was found bare and dead, and surrounded by pus. The joints at each end of the bone were healthy, and the epiphyses were unaffected. Secondary abscesses and other indications of pyæmia were found in the body.

These cases will serve to illustrate the prominent symptoms of this affection; such symptoms being, first, a local swelling, pain and tenderness, followed by constitutional fever and subperiosteal effusion, ending in abscess beneath the periosteum, or in the neighbouring joints, general pyæmia, with death from secondary affection of internal organs. The early symptoms, especially if pyæmia be rapidly developed, often much resemble those of acute rheumatism; and this on account of the swelling of the part first affected, the frequency with which joints remote from the seat of disease are attacked by pyæmic inflammation, and the pericarditis which so often complicates the disease. Thus it has happened that many of the cases I relate were mistaken for, and treated as, acute rheumatism with cardiac complication.

The tendency to pyæmic poisoning of the blood is the most characteristic difference between the necrosis of the young and fully grown adults. As I have before stated, I believe the predisposing cause of this affection to be the extreme vascularity of certain parts of the long bones, which, from their very position, are more exposed to external injuries and influences than other parts, and are, from their vas-

cularity, extremely prone to resent such injury by copious subperiosteal effusions.

All but one of the twenty-three cases before me occurred before the age of twenty; that is, while growth and ossification of the bone were still in progress. This will, I believe, account for more than half (or twelve) of the cases having commenced in the lower epiphysal end of the femur—the most rapidly growing epiphysis in the whole body, the first to appear in infant life, the last to disappear in adult age. It will, I believe, explain why seven of the cases happened in the tibia, which, next to the femur, is the most rapidly growing long bone in the body, and why of these cases the majority commenced in the upper epiphysis of that bone, an epiphysis which appears but a few days later than that of the lower end of the femur, and in which growth ceases somewhat sooner.

The local origin of this malady is frequently a blow of some sort. In twelve, or more than half of these cases, this was the assigned cause; six were not traceable to any cause; three occurred after exposure to cold; one was attributed to privation; one to a strain.

[To be concluded.]

CURIOUS CASE OF POISON: EFFECTS OF THE UPAS-TREE POISON. The *Abeille Médicale* states that a short time ago a scientific gentleman at Berlin received a small quantity of the condensed juice of the upas, and resolved to try the effects of it upon himself. One afternoon he accordingly took three grains of this drug, which he found very bitter and rather saltish. Immediately afterwards he felt extremely gay, and a bad headache which he had at the time disappeared; but after a while he experienced a sensation of oppression in the stomach. Nevertheless, he had the imprudence to go out; on turning a corner he became aware of a considerable stiffness along the spine; this was about half an hour after having taken the poison. An hour later, while taking a cup of coffee, he felt a violent shock throughout his body, and stiffness at the extremities; at the same time his head was thrown backwards, he lost all power of speech, but his mental faculties remained unimpaired. There was a slight remission of these symptoms for a few minutes, and then a fresh attack came on, and this continued until the patient at length succeeded in expressing a wish to be taken to the hospital of La Charité. As he was being helped downstairs to get into a carriage a new attack impeded his progress, but during the drive he had none, although the slightest shake seemed sufficient to bring it on. These attacks were attended with but little pain; deglutition was very difficult, and the patient felt very weak. After every attack the muscular system relapsed into inertness. At the hospital emetics were immediately administered to expel the poison if any remained; the vomiting was attended with sudden starts, spasms in the glottis, and difficulty of breathing; the latter symptom, however, soon subsided. The pulse was at 72. Thirty drops of laudanum were administered at the rate of ten for every quarter of an hour, and then thirty more, in three parts, at intervals of half an hour. The patient fell asleep, but was often awakened by the contraction of the muscles of the back and neck. Laudanum was again administered, and sleep returned. On the following morning the patient felt very weak, but only complained of stiffness in the left muscles of the neck; the pulse was at 66. Wine and light food were now given instead of medicine, and on the sixth day the patient left the hospital perfectly recovered. (*Galignani's Messenger*.)

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

OBSERVATIONS ON CEREBRAL HÆMORRHAGE, FROM AN ANALYSIS OF FORTY FATAL CASES.*

By THOMAS JONES, Assistant Resident Medical Officer at the Hospital.

FULLY impressed with the importance of investigating any disease by the "numerical method," I am desirous of recording some general inferences arrived at on certain points in relation to cerebral hæmorrhage. These inferences have been induced from pell-mell accumulation of individual facts obtained from the records of forty fatal cases that have occurred at St. George's Hospital. In any inquiry of this kind, it is of the utmost importance to steer clear of all sources of fallacy which are so prone to creep into our individual facts, rendering our data a conglomeration of truth and error. For these reasons, I have carefully excluded in my analysis all the cases of merely congestive or simple apoplexy of Abercrombie, and also those which had not died, however marked the symptoms may have been. I have thus included only those which presented after death visible evidence of hæmorrhage within the cranium; and all these taken indiscriminately and heaped together quite independently of any preconceived idea of the disease. After all this careful scrutiny, I find I have notes of forty cases.

I shall examine these cases with the view of determining, if possible—

1. The prevailing symptoms which indicate an approaching attack of cerebral hæmorrhage;
2. The symptoms which exist after the lesion in the brain, leading to effusion of blood, has taken place.

I.—PREMONITORY SYMPTOMS.

The importance of studying these premonitory symptoms cannot be too strongly insisted upon; for by timely and judicious treatment, an attack might be effectually warded off, and not to return for a considerable length of time.

The following table shows the relative frequency of these different symptoms, excluding those cases (Sec. 6) of which the history is deficient or altogether wanting. The calculation per centage is made in proportion to 30.

Symptoms.	No. of cases.	Per cent.
1. Mental: Impaired intellect . . .	1	
Drowsiness . . .	1—2	6.66
2. Sensational: Cephalalgia. . .	4	
Vertigo . . .	2	
Nausea . . .	2	
Altered sensations in the limbs . . .	2—10	33.33
3. Motorial: Diminished power in limbs. . .	1	
Do. over sphincter . . .	1—2	6.66
4. Symptoms positively stated to be absent . . .	11	36.66
5. "Found insensible". . .	5	16.66
6. History wanting . . .	10	
	30	99.97

* From papers read before the St. George's Hospital Medical Society during the sessions 1861-62 and 1862-63; and before the Western Medical Society, 1862-63.

From the above it appears—excluding the doubtful cases—that symptoms are more frequently present than positively absent. They were present in about 46 per cent. and absent in 36 per cent.

The most common symptoms are those of abnormal sensations; of these, cephalalgia seemed to have been the most frequent form, it having been observed in 13 per cent. The seat of the pain in the head is no indication in all cases of the site of the hæmorrhage which may subsequently take place in the brain. One of the cases was a woman who suffered from most severe pain in the temporal regions, but the hæmorrhage which afterwards followed existed in the cerebellum. Vertigo, nausea, and altered sensations in the extremities, occurred with equal frequency as the total in the mental and motorial groups; viz., about 7 per cent. The altered sensations in one case were described as “strange feelings,” which were general, and the paralysis which subsequently supervened was general; in another, those altered sensations, described as “numbness,” were confined to the extremities of one side, which afterwards became the seat of the paralysis. Thus, it appears that sensibility may be perverted or diminished, and these symptoms occur in those parts which afterwards become paralysed; hence, by these symptoms, one would be able to prognosticate the probable site of the hæmorrhage in the brain if it should take place.

These premonitory symptoms varied in duration from a few minutes to three months. I have no doubt that in many instances they are so transient as to escape observation altogether.

Now, to estimate the diagnostic value of any of the foregoing symptoms as precursors of hæmorrhage into the brain, we should take into consideration certain other symptoms which may be present or absent in each case. Suppose, for example, the headache were persistent for some length of time in persons presenting evidence of general defective nutrition, with degeneration of the arteries and kidneys, and hypertrophy of the heart, especially if these be accompanied with one or more of the other precursory symptoms enumerated, we have strong reason to infer that our patient suffers from that condition of the vessels and tissues of the brain, which, if not arrested, will inevitably terminate in rupture of the vessels, and consequently effusion of blood.

II.—SYMPTOMS DURING THE ATTACK.

a. Alterations of Motility. 1. *Paralysis* may be general or partial. The following analysis shows the relative frequency with which each variety occurred. As the information in one case was somewhat doubtful, I have excluded it, and have made the calculation per centage in proportion to 39.

	No. of cases.	Per cent.
Paralysis. { (a.) General	9	23.07
{ (b.) Partial	21	53.84
Positively stated to be absent.....	9	23.07
	39	95.98

From the above, it would appear that paralysis occurred in about 77 per cent.; so that this symptom is more frequently present than absent. It also appears that partial paralysis is much more common than general; the former having existed in more than two-thirds of the cases in which loss of power was observed, and in more than one-half the total number of cases. Absence of paralysis was observed in one-fourth of the cases—a point of some importance to be borne in mind when we shall attempt at explaining the manner in which cerebral symptoms may be produced.

Of the 9 cases in which the paralysis was general, it was confined to both upper extremities in 2, and in one case the lower limbs alone were the parts mentioned as being paralysed. In the remaining numbers all the limbs were completely paralysed. As a decided instance

of paraplegia is so seldomly met with as the effects of cerebral hæmorrhage, perhaps a short account of the case may not be void of interest.

CASE I. William E., aged 49, a plasterer, had been pretty well, and at work all day. In the evening, he went to a public-house, and drank, as was stated, only two glasses of ale. Walking home, he staggered, and could not have got along had not his friends supported him. He complained at the same time that he could not see. He was at once conveyed into the hospital.

On admission, he was perfectly coherent and sensible, but appeared to have no power in his legs, which were also devoid of sensibility; and he had incontinence of urine. Shortly after admission, he vomited fluid smelling strongly of beer. Ten leeches were at once placed on the temples, which bled freely. Purgatives were given without any result. A blister was applied to the nape of the neck, which rose well. In two hours after he was admitted, he became comatose, and remained in this state until the following morning—twelve hours after he was first seized—when he died.

A *post mortem* examination was performed thirty hours after death. The body was in good condition; the lower parts were livid. There was much fluid blood in the scalp. The surface of the brain was dry; the convolutions were much flattened. There was a considerable quantity of bloody fluid in the lateral ventricles. The septum was broken down, and there was a considerable clot of blood in the descending horn of the right lateral ventricle. There was a small clot in the anterior part of the left optic thalamus; and another, also of small size, in the corpus striatum. The principal clot, however, was situated in the centre of the pons Varolii, which was extensively broken down. The clot extended forward in the right crus cerebri, and behind had broken into the fourth ventricle, which was full of semi-clotted blood. All these clots were quite recent. The arteries at the base of the brain were extensively atheromatous. No other part of the body was examined.

This case is open to objections; for the obvious reason, that the spinal canal and its contents were not examined after death. The existence of the loss of sight, however, indicated that he suffered from lesion in the brain on his admission. This fact, together with the absence of the ordinary symptoms of sudden lesion of the spinal canal or cord, seem to point that the paraplegia in this case depended upon the hæmorrhage in the pons. The hæmorrhage which was found here and in the crus cerebri would also account for the loss of sight, by the pressure it must have exerted upon the optic tracts. Previously to meeting with this case, I felt convinced that paralysis of both upper or lower extremities is not an unlikely phenomenon to take place from hæmorrhage into the pons, providing it were sufficiently localised.

I remember a case in which both arms, with one side of the face alone, were paralysed; but the hæmorrhage was confined to the pons. Probably, the hæmorrhage into the ventricles took place in this case at the time the patient became comatose.

The following were the prevailing sites of the hæmorrhage in these cases of general paralysis:

1. One side of the brain, with fluid blood passing into the opposite lateral ventricle.
2. Both lateral ventricles.
3. The central ganglia at the base of the brain.
4. Both hemispheres of the brain.

The number of cases are too few to draw any inferences as to the parts which are most frequently the seat of hæmorrhage in cases of general paralysis. It is important to note that in none of the cases was the lesion confined to one cerebral hemisphere. In one case, however, it was found on one side and the corresponding side of the pons Varolii.

[To be continued.]

Original Communications.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON THE VARIOUS FORMS OF PARALYSIS.

By EDWARD MERYON, M.D., F.R.C.P.

[Continued from page 29.]

PARALYSIS FROM MYELITIS.

THE lesions of sensation and motion which accompany inflammation of the spinal cord vary with the seat, intensity, and period of the disease. If only one side of the cord be affected, the paralysis which results is confined to the corresponding side of the body. When the anterior columns chiefly are the seat of inflammation, the paralysis which follows is that of muscular motion; but of sensation, if the lesion exist in the posterior columns; and, if a careful analysis be made of the several cases in which the grey substance of the cord has been implicated, it will be found that the function of reflex action has been deranged.

During the early stage of inflammation, when the capillaries of the cord are abnormally loaded with red blood, there is a corresponding exaltation of tactile sense and muscular contraction. It is true, death rarely occurs at this first stage of inflammation; but if we may be guided by the analogy of corresponding conditions, superinduced towards the termination of disease of other portions of the nervous centre, the above inference is justified; and a case in point is recorded by M. Ollivier. (*Traité de la Moelle Epinière*, vol. ii, pp. 636-640. Observation 81. Deuxième édition.)

But as the corpuscles of the blood begin to be arrested in the injected vessels, a correlative diminution of the vital properties of the cord ensues; and it is made manifest by the decreasing sensibility or motility of the parts which receive their nerves from the affected part. It is conceivable that the vascular dilatation, when thus carried to an extreme degree, produces injurious pressure on the complex organ, and thereby diminishes its functional activity.

The next stage is that of serous or purulent exudation, in which the consistence and cohesion of the nerve-fibres are destroyed, and a solution of their continuity takes place. The arrest and accumulation of the blood-corpuscles in the distended capillaries impair the quality of the blood, and cause it to behave in the same way as when separated from the living body. It coagulates, in fact; and the liquor sanguinis, together with red and white globules, transude through the delicate tissue of which the capillary walls are formed, and which is known to be favourable to the interchange between their fluid contents and the tissues through which they pass. In this way, as Mr. Lister has satisfactorily shown (*Proceedings of the Royal Society*, June 1857), "these tissues in some degree approximate to the condition of dead matter, and cease to discharge the offices peculiar to them as components of the healthy animal frame."

This disorganisation entails a condition of complete paralysis, more or less extensive, according to the seat and extent of the inflammation. Every part of the body which receives its nerves from the spinal cord below the upper level of the structural lesion is paralysed; consequently, when destructive myelitis extends throughout the cord to the fifth pair of cervical nerves, the upper extremities are palsied, and all those parts which receive their nerve-power from a lower level of the cord are palsied too. If it reach still higher, respiration will be disturbed in consequence of the phrenic nerves becoming involved, whilst the circulation of the blood and

the action of the irides may be affected through the medium of the sympathetic nerves.

But if the paralyzing influence do not extend through the entire thickness of the cord, then may the lower extremities preserve their sensation and motion, although the arms hang powerless, owing to the disease having dissected out, as it were, the groups of ganglionic cells which determine the action of certain sets of muscles, whilst the conductors of the will for the movements of the legs pass by unscathed.

An illustrative case, occurring in the practice of M. Broussais, is recorded by Ollivier. The patient was a medical student aged 21, who had, as a result of acute myelitis, complete paralysis of the upper limbs, while the legs, as well as the bladder and rectum, retained their healthy power. He died on the eighth day after the attack. There was some increased vascularity of parts of the encephalon, considerable congestion of the sinuses of the cord with fluid blood, and much sanguineous effusion between the dura mater and the vertebral arches opposite the brachial enlargement of the cord, as well as a considerable quantity of red serum between the pia mater and arachnoid at the lower part. Four minute cartilaginous laminae were found about the centre of the dorso-lumbar enlargement; and the opposite surfaces of the arachnoid were adherent at several points over the brachial enlargement, which part of the cord, especially the grey substance, was remarkably soft for about two inches. The remaining part of the cord below was somewhat softened.

This case is interesting on more accounts than one, for it illustrates most of the phenomena of myelitis in the cervical region of the cord. The next observation which Ollivier describes (No. 78) is demonstrative of the fact that, when destructive myelitis involves the entire thickness of the cord in the cervical region, there is, as might be expected, complete paralysis of the four extremities.

When the disease occurs in the dorsal region between the two enlargements of the cord, the respiratory muscles which are under the influence of the dorsal spinal nerves, obeying the laws of irritability, are frequently agitated by violent spasms, and the breathing is accomplished by short and painful efforts. If the disease extend to either enlargement, the arms or legs may participate in the spasmodic movements. But, as the work of disorganisation goes on, anæsthesia of the surface and paralysis of the muscles above alluded to follow in the train of symptoms—abdominal respiration, disturbed circulation, embarrassed digestion, difficult defecation, inefficient micturition, and all the consequences of these respective functional disturbances, ensue.

A nervous and imaginative man, with lateral curvature of the spine, is alluded to by Ollivier (vol. ii, pp. 658-667). After an irregular course of life, he experienced at the age of 34 considerable pain and numbness over the curved part between the shoulders; and complete muscular paralysis, with hyperæsthesia of the arms, rapidly ensued. Respiration and expectoration were difficult. He had likewise painful digestion, obstinate constipation, and considerable weakness in the expulsive power of the rectum; but he could void his urine, and retained the muscular power of the lower extremities until he died, at the age of 44.

In this case, the spinal cord did not suffer from compression; but from below the fourth cervical vertebra to the fourth dorsal—about seven inches in extent—the cord was found to be little more than a diffuent mass of greyish red fluid, which fluctuated about with the movements of the body. A few nerve-fibres remained in the situation of the anterior columns; but in the diseased part the anterior roots of the spinal nerves were reduced to their neurilemma only, all the white substance or nervous matter being absent; the posterior roots preserved their integrity.

The solution of continuity of the anterior columns was not complete; hence the case forcibly illustrates the independent function of each individual longitudinal nerve-fibre; and, in considering the change of structure above alluded to, it should be remembered that no part of the animal body changes so rapidly after death as the nervous tissue; so that the decomposed state in which the diseased portion of the cord was found might have resulted from a *post mortem* transformation; and that it was so appeared from the injected condition of the capillary vessels, which were left floating in the fluid mass—a degree of vascularity inconsistent with absolute destruction of both structure and function.

Dr. Nairne has recorded a more acute case in a boy aged 17, who had also an affection of the heart resulting from rheumatism, and in whom chorea existed. He was admitted into St. George's Hospital on the 27th of June, 1849. On the 3rd of July, he died; the convulsive movements having ceased only some hours before his death.

On examining the body twelve hours after death, the spinal veins were found to be greatly congested; and a portion of the spinal marrow—an inch at least in length—opposite the third and fourth dorsal vertebrae, was white and reduced to a semifluid state. In the central part of this softened portion there was fluid; and the remainder was so thoroughly disorganised, that it was thought unnecessary to put any of it under a microscope. (*Medico-Chirurgical Transactions*, vol. xxxiv, p. 37.)

In these cases, where the lesion of the spinal cord is of such a nature as to intercept the transmission of the influence of the will from the brain, convulsive movements are apt to occur in the legs, and to continue for a long time even after the arms have become completely paralysed. These phenomena are doubtless owing to the excitement of disease reflected from the spinal marrow to the motor nerves of the lower extremities. And the same involuntary movements may be produced artificially by tickling the soles of the feet, whose nervous connexion with the brain is cut off by the destruction of a portion of the cord. The influence of the stimulus is transmitted to the spine by the incident nerves, and is reflected back by the motor nerves, thereby producing spasmodic contractions of the limb. Some interesting cases of this description are recorded by Dr. Budd in the twenty-second volume of the *Medico-Chirurgical Transactions*.

But when the disease is confined to the lumbar enlargement of the spinal marrow, the convulsive movements occur at an early period of the disease, and cease *pari passu* with the disorganisation of the cord. And for a time also the electro-muscular contractility is retained; * but eventually this latter property is almost always lost. In the same manner, if there be in the first stage spasmodic contraction of the sphincters of the rectum and bladder, the urine generally becomes alkaline from retention; and priapism not unfrequently results as a reflex action from a distended bladder; but this state soon gives place to a negative condition which is often ushered in by reflex spasms of the legs during defecation and micturition.

The characteristic symptoms of paralysis, as induced by destructive myelitis, are:

1. Pain over that portion of the back which corresponds to the seat of inflammation.

2. Lesions of sensation giving rise to feelings of formication, creeping, pricking, tingling, heat, or cold, to numbness or complete anæsthesia.

3. A gradual and progressive diminution of muscular

power, distinguishing it from the paralysis which the French have denominated "ataxie locomotrice progressive".

4. An equable degree of paralysis in all the muscles which are implicated; for as in health the nerve-force is distributed to whole groups of muscles in an equal degree, so likewise is it annulled when the nervous centre is disorganised.

5. Convulsive and reflex movements of the paralysed muscles.

6. Spasm or paralysis of the rectum and bladder.

7. Alkaline urine. And finally,

8. The loss of electro-muscular contractility.

Be the cause of acute myelitis what it may, whether accidental violence, inordinate muscular exertion, the abuse of venereal pleasure, cold, tubercle, or any other cause, when paralysis has once supervened, there is great reason to fear that the inflamed portion of the cord has passed into a state of disorganisation, and that the disease is incurable. The prognosis, however, will in some degree depend on the precise seat of the disease. If it be in the cervical region, for reasons already stated, the *immediate* danger is greater than when in the dorsal; in this latter, again, the prognosis is more unfavourable than when the lower portion of the spinal marrow is affected; and when the patient retains the command over the motions of the rectum and bladder, and the acid character of the urine remains unchanged, the case is still more hopeful.

But in the dorsal portion of the spinal column there is an exceptional state of things, in consequence of the calibre of the canal, which is narrower and more closely adapted to the volume of its contents than any other part. In the cervical vertebrae, where the extent of motion between vertebra and vertebra is greater, the canal is of a triangular form, and large in proportion to the size of the cord. In the lumbar vertebrae, it is also triangular and capacious; and the dura mater is loosely connected with the bony canal. A considerable space, moreover, is left between the opposed surfaces of the arachnoid, so as to allow of a sufficient play of one surface on the other; and thus, at the greatest extent of natural curve, no pressure can take place. Not so, however, with the dorsal vertebrae, the mechanism and articulation of which conspire to limit motion; and there the cord is closely enveloped in its membranes, which more completely fill the canal. This construction of the spine was first described by Mr. Earle (On the Mechanism of the Spine, *Philosophical Transactions*, 1822, part ii, pp. 276-283), to explain a circumstance which had been noticed in diseases affecting the vertebra; namely, "that the symptoms of irritation and inflammation of the spinal marrow are much more early manifested, and are generally more serious in their consequences, when the dorsal vertebrae are affected, than when either the cervical or lumbar are the seat of disease. In the former case, the slightest congestion or effusion is often productive of serious symptoms, from the canal being smaller and more completely filled with the marrow and its membranes; whilst, in the latter description of cases, from the greater capacity of the canal and looseness of the membranes, considerable effusion may exist, without at first producing any marked symptoms, more particularly in the lumbar region"; where, from other circumstances already explained, pressure is less dangerous to life.

In all cases of paralysis dependent on myelitis, both diagnosis and prognosis are greatly assisted by a knowledge of every antecedent and concomitant circumstance connected with the particular instance. In the acute form, every characteristic sign is well marked, and the disease runs a rapid course. M. Ollivier gives, as an average, from three to four days; * but, in some chronic

* To determine the amount of muscular excitability, M. Duchenne of Boulogne places the moistened conductors of his volta-Faradic apparatus on each side of the belly of a muscle, and thus ascertains the amount of electro-muscular or Hallerian irritability which the muscle possesses. (*De l'Électrisation Localisée*, etc., p. 66.)

* An interesting case of paraplegia from acute myelitis, which was

cases, the pain in the back is sometimes scarcely noticed, notwithstanding that the structural change in the cord may pass through every stage of disorganisation. An example is quoted by Dr. Abercrombie from Professor Bréra.

Such cases, in which a progressive weakness is the only symptom antecedent to complete paralysis, are usually called non-inflammatory; and the morbid result is for the most part a white softening of the spinal cord; but *ramollissement* is very seldom observed where pain has not previously existed; and, in the great majority of cases, I am disposed to think that it depends on an inflammatory origin. Lallemand of Montpellier, whose investigations were in a great degree confined to young and vigorous persons, regarded every case of softening as the result of hyperæmia, extravasation, and endogenous formation of pus; whilst Rostan, whose observations were confined almost exclusively to the aged, maintained that the structural lesion in question might occur without a trace of congestion, infiltration, or morbid secretion; but that it results from a diseased state of the arteries, and, consequently, from an imperfect nutrition of the part to which those arteries are distributed.

It is probable that both views contain the elements of truth, and that softening may depend on inflammation, exudation, and alteration of the connective tissue of the cord; and that it may be produced also by a diseased condition of the arteries and of the coats of the capillaries, whereby the mutual interchange between the blood and the tissues is interrupted.

Fortunately the question is of no great practical importance; for, as a general rule of treatment, it may be stated that as long as the affected muscles are convulsed, rigid, and irritable, the use of antispasmodics and counterirritants is indicated; but when the means which are calculated to subdue the stage of excitation have failed to arrest the further progress of disease, and paralysis supervenes, stimulants are the only remedies which have the power of restoring to functional activity those nerve-cells and conducting fibres which are not irretrievably destroyed.

And of all stimulants with which we are at present acquainted, electricity and strychnine are unquestionably the most potent and the best.

M. Barbier, of Amiens, first suggested the *secale cornutum* as a remedy possessing the same power as that of strychnine, but in a more manageable form; and M. Payen, of Aix, reasoning on the special action which the secale appears to have on the nervous system,—producing, as it does, feelings of tingling and involuntary spasmodic movements of the legs—tried its effects in paraplegia, and in many cases with the most encouraging result. From repeated and careful observations, he concluded that where neither great pressure, beyond that which simple congestion produces, nor disorganisation of the spinal cord exists, its remedial power is very great. In one case of paraplegia complicated with paralysis of the rectum and bladder, the healthy function of these latter organs was completely restored. At the Bicêtre, M. Guersant has had much experience of its action, and has established the fact of its efficacy as a means of resuscitating muscular contractility of the rectum and bladder, and of assisting the latter organ to expel the remains of calculus left after lithotomy. (*Journal de Chimie Médicale*, June 1839.) The interesting question, however, which suggests itself, from our knowledge of the property of ergot of rye in arresting uterine hæmorrhage is, whether its special agency may not be on the sympathetic system, and consequently on the vaso-motor nerves? The gangrene which it produces points to that particular action, and a distinguished physiologist affirms that

he has seen the diminution in the calibre of blood-vessels of the pia mater of the spinal cord take place in dogs after they had taken large doses of ergot of rye; and that the reflex power of the spinal cord becomes very much diminished under its influence. (*Lectures on the Diagnosis and Treatment of the Principal Forms of Paralysis of the Lower Extremities*. By C. E. Brown-Séquard, M.D. P. 78.) And yet the prolonged use of the ergot produces convulsive affections of the face and hands, and in some cases absolute opisthotonos: results entirely at variance with the growing opinion of the effects produced by a diminished supply of blood to the spinal marrow. But we are not called upon to discard a remedy because we cannot entirely explain its mode of operation; neither should we disregard the experience of men like Guersant, Troussseau, and Brown-Séquard, from whom we have every encouragement to depend on the ergot of rye in chronic myelitis, especially when the pelvic viscera are implicated in the paralyzing influence. I have given the æthereal tincture in doses of from ten to twenty drops twice or three times a day, and certainly with advantage; but I have not experienced the relief to reflex convulsions from it which I have been led to expect, and have therefore trusted to prussic acid, digitalis, and belladonna for that purpose.

After the local pain in the back has been subdued by the regular and repeated application of two or three leeches to the painful part, followed by a large warm poultice over the whole length of the spine, and a belladonna plaster of equal length to follow it; or an occasional blister on each side of the spine, together with mild warm purgatives if necessary, I have found no remedy so effectual as strychnia in the dose of one-twentieth of a grain, repeated more or less frequently (twice or three times a day), according to the evidence of its action.

Electricity, after the activity of inflammation has been subdued, is a therapeutic agent of great value; and my own experience has convinced me that the continuous current of galvanic electricity is just as efficacious as the induction or intermittent current.

Whether galvanism or electro-magnetism be employed, no high degree of tension is required for the restoration of muscular power; on the contrary, I suspect that the favourable course of many a case has been retarded by the employment of strong currents, and that Pfäfer's experiments may be contemplated with advantage.

But when disorganisation of the spinal cord has become an accomplished fact, the disease is incurable. The exigencies of the patient, however, are not the less pressing on the careful attention of the physician, and in nothing more so than in the protection which is called for against bed-sores, which will sometimes occur in spite of the greatest care.

Spinal congestion and inflammation may result in apoplexy, or the formation of a blood-clot in the cord itself, or on its surface; but paralysis is not an invariable attendant on such extravasation unless it be in the substance of the cord. Such cases are extremely rare, but when they have occurred, the clot has generally been found in the cervical region; and, according to Rokitan-sky, in the grey substance of the cord. Dr. Abercrombie has given a summary of nine cases, in five of which the extravasation existed on the surface, and convulsions, without paralysis, were the principal symptoms. In four others, the cord being more or less implicated, paralysis ensued.

Paralysis may likewise supervene from induration of the spinal marrow, which is not an unfrequent result of chronic myelitis. The preternatural consistence is generally confined to the columns of the cord, and the cervical region is by far the most frequent seat of the affection. This structural change is probably due to a peculiar condition of the blood, or of the extravasated fluid from the blood, which becomes converted into an abnormal fibroid tissue, the deposition of which, in the interstices

caused by the action of cold on the body, and which lasted six days, is reported by Dr. Burrows in the *Medical Times and Gazette*, vol. xxii, p. 331. M. Ollivier records a case of chronic myelitis, the duration of which was fifteen years. (Tome ii, *Observation* 92, p. 685.)

of the longitudinal nerve-fibres, involves the absorption of the nervous matter, and the resulting induration is called sclerosis. A very remarkable example of paralysis from this cause is recorded by M. Portal. (*Cours d'Anatomie Médicale*, tome 4, pp. 116-17.)

The above, together with two or three other cases of induration of the spinal marrow, are contained in M. Ollivier's work; and in all there is a great analogy of symptoms; but the most remarkable feature in all is the long duration of the disease, notwithstanding the important portion of the nervous centre affected. In neither case was there any muscular contraction, which is so commonly observed in myelitis ending in softening.

A remarkable case of induration and local softening of the spinal cord is also recorded by M. Laboulbène, which has been quoted as suggestive of the exact channel in the cord through which impressions of sensation are transmitted. (*Mémoires de la Société de Biologie*, 1855. Pp. 233-45.)

The iodide of potassium is a remedy which suggests itself to the mind in cases where there is good evidence to believe in the existence of chronic myelitis with induration of the cord. For upwards of ten years I had under my observation a gentleman who, at the age of about 65, began to show symptoms of what I suspected to be induration of the spinal cord. At an early period of the disease he had paroxysms of distressing formication, each of which was the prelude to loss of muscular power. A course of the iodide of potassium always relieved the itching and tingling surface, but on no occasion did it arrest the progress of the general paralysis.

The absence of pain and of spasmodic muscular contraction of muscles in this affection, enjoins much caution in determining the precise moment when the spinal cord is likely to be favourably affected by the energetic excitement which strychnine has the property of communicating to it; therefore its internal administration may be preceded by its external use, together with other stimulants in the form of embrocations over the spine, in this, as in all other varieties of myelitis, when the stage of excitation has been subdued. The same external applications may be employed for the purpose of stimulating paralysed muscles to action through the influence of the sensitive branches of the spinal nerves; and in so doing, the interesting observation of Schroeder Van der Kolk, that "the spinal nerves give their motor branches to the muscles as instruments of motion, and their sensitive branches to the parts moved," should be borne in mind, in deciding on the part to which the embrocation is to be applied.

[To be continued.]

CASES OF PUERPERAL CONVULSIONS TREATED WITH AND WITHOUT BLEEDING.

By R. PROSSER, Esq., Surgeon, Bromsgrove.

CASE I. A. J., first confinement, June 6th, 1860, 4 P.M. She had been in labour four hours. The pains gradually increased, and in an hour became very strong; and she had a violent convulsive fit. She was bled immediately to about twenty-five ounces; in about ten minutes after she was bled, the convulsion ceased; but she remained insensible for a few minutes longer. Whenever the pains came on strong, the fits recurred with equal violence. The fits and pains continued at irregular intervals, and the labour progressed very slowly for some time. After the head had descended upon the perinæum, it seemed to stand; and whenever the pains came on strongly, the fits came on with greater violence. The forceps was applied, and delivery very easily effected. The placenta came away. The uterus contracted, and no

hæmorrhage occurred. There were no fits after delivery. The patient made a good recovery.

CASE II. F. W., third confinement, August 6th, 1860. When the pains put on an expulsive character, she was taken in a violent convulsive fit, which passed into a comatose state. She was immediately bled to about twenty ounces. The fits continued; and the case progressed very slowly. The forceps was applied while she was in a comatose state; and the case terminated without any further difficulty or complication. No fits occurred after delivery; and she made a good recovery.

CASE III. E. W., about eighteen months previous to my attending her, was taken in fits about nine days previously to her delivery. The fits continued about two days. She was bled twice, and had twenty leeches applied to her head. She had no fits during labour. She made a tedious recovery.

On June 4th, 1861, she was in a violent convulsive fit; the breathing stertorous, and face turgid. She sank into a state of quiet unconsciousness, and remained so for about ten minutes. The fits recurred at irregular intervals for the next twelve hours with more or less violence. The kidneys were inactive. A saline diuretic was given; and perfect rest and quietness maintained. The fits gradually became less violent and less frequent, until they ceased. No more fits occurred; and she was naturally delivered eight days afterwards, and made a speedy recovery.

On March 20th last, nine days after confinement, she had a most violent convulsive fit which lasted some hours, or rather a succession of fits. She bit her tongue; her breathing was stertorous, and face turgid. The bowels had not acted for three days; and the kidneys very little. She had large doses of solution of sulphate of magnesia repeated about every three or four hours, until the bowels acted freely. After the bowels had acted, she was without a fit for six hours when a fit came on; and she was no sooner free from one than she was seized with another. The kidneys continuing inactive she had a saline diuretic, and was kept perfectly quiet, and free from all disturbance and restraint. She sank into a deeply comatose state, and continued so for eight hours. When she awoke, she expressed herself much better; but complained of feeling exhausted. No more fits occurred; and in a week she was convalescent.

CASE IV. P. D., about two years previously to my attending her, was taken in labour. She had fits; was bled and delivered; and made a good recovery.

On January 8th, 1862, labour had made considerable progress. The pains became very strong; and she was seized with a violent fit. The limbs were rigid; the breathing stertorous; and the face livid. The fit lasted about ten minutes, but recurred again and again, when the pains came on strongly. The forceps was applied without any difficulty. The placenta immediately followed the birth. The uterus contracted, and no hæmorrhage occurred. There were no fits after delivery; and the patient made a good recovery.

CASE V. E. P., first confinement, March 18th, 1861. She had a "good time"; but next day she had a convulsive fit. As I was not at home, a friend saw her and bled her. No fit occurred until the following day, when she was taken much the same. She had a castor-oil aperient; and made a good recovery.

CASE VI. G. O., in February last, had a natural labour; but a few minutes after the birth, she had a convulsive fit which only lasted about five minutes. Neither bleeding nor any other treatment was adopted. She was kept perfectly free from all disturbance; did not have another fit; and made a good recovery.

REMARKS. The first two cases show that bleeding was tried with no benefit; for the fits continued, and only ceased upon delivery. Cases III and IV were subjected at two different confinements to the two different systems of treatment, and recovered equally well. Case V was

bled immediately, when a slight fit occurred—and yet a similar fit occurred next day. Case VI was similar to case V, but got well without any treatment at all.

Transactions of Branches.

NORTH WALES BRANCH.

PRESIDENT'S ADDRESS.

By LLEWELYN LODGE, M.R.C.S.Eng., St. Asaph.

[Delivered at Rhyl, July 7th, 1863.]

GENTLEMEN,—By no special merits of my own, certainly not by any preconceived desire, but through your kind and too favourable consideration of my humble services, I have been elected to preside over the North Wales Branch of the British Medical Association for the current year. The remembrance that so many talented and eloquent members of our profession have successively and so well filled this position, might induce me to hesitate ere I accepted the post. When I reflect with how much welfare and success the operations of all classes of society depends upon obedience, I cheerfully comply with your wishes, and will endeavour to discharge the duties pertaining to the presidentship with all the zeal and industry I can bring to my aid. Gentlemen, for the honour you have conferred upon me I beg to convey to you, with the earnest expression of sincere feeling, my warmest acknowledgments and best thanks.

Our annual gatherings present many features of interest to the widely scattered members constituting the Branch. We enjoy, often long before the time, a pleasurable feeling at the prospect of an intellectual treat, arising from the experience and matured opinions of older members of our profession; and when we are fortunate enough to snatch a day in realisation of these wishes, we return home rich in each other's friendship and social regard, and with our minds also enriched with some new discoveries in medicine and the collateral sciences. To those of our brethren who may not have been able, from pressure of professional engagements, to attend our reunions, the BRITISH MEDICAL JOURNAL opens its well-stored pages of information, giving an account of all passing events, and noting particular occurrences at these Branch meetings.

The influence of the British Medical Association is felt not alone in the profession, but also out of it. Principally through its means we have had the Medical Act; and we hope that this measure will ere long be improved by the correction of some anomalies in it which earlier and hasty legislation, from fear of provoking opposition or other cause, failed to achieve.

The general and professional education of the rising generation of medical men will, it is fair to expect, place them, in point of rank and status, not below the members of other learned professions. I can conceive that they will, at no distant period, be placed on an equality with the upper legal profession, as represented by judges and barristers. I am speaking of the general body of medical men—the bulk of the profession: for there are already very many brilliant examples of men who are peculiarly gifted, and who may be said to be fitted to adorn some of the highest stations in the realm. You will readily understand that I allude to men like the late Sir B. Brodie, to our own worthy associate Sir Charles Hastings, to Christison, Syme, Simpson, and many others whose names will at once recur to your minds. Then, by being true to ourselves and honouring and regarding each other as brethren indeed, we might enter the courts of justice, and compel gentlemen of the long robe to show us greater respect and courtesy than we can at present boast of receiving from them. We would also, by our moral and general character, remove

the bad impression upon our motives and actions now unjustly attached to us in the public estimation. You have all long since heard and read of the proceedings which had been taken against some highly respectable medical men in England and elsewhere. I refer to the cases of Mr. Adams of London, Dr. Waters of Chester, and others. You need not be told by me how unjustly and undeservedly they were dragged into courts of law. I rejoice that they defeated their enemies so triumphantly; but I deplore the position of those medical men who stood up against them, and delivered their opinions with the view of influencing the minds of the jury against at least one of the gentlemen (Dr. Waters). Sad it is to witness scenes like these; but the united voice of the profession will soon, I hope, put a stop to such unseemly practices.

I fear I have detained you unnecessarily long. If I have erred in this respect, let me assure you that I am deeply mindful of, and obliged for, the kind and patient hearing you have so good-naturedly accorded me.

SOUTH MIDLAND AND CAMBRIDGE AND HUNTINGDON BRANCHES.

PRESIDENT'S ADDRESS.

By WILLIAM PALEY, M.D., Peterborough.

[Delivered at Peterborough, July 9th, 1863.]

GENTLEMEN,—I assure you I feel most deeply sensible of the high honour you have done me in permitting me to preside over such a large united meeting of our Branches. The compliment is doubly gratifying as coming from members of my own profession. However much we may wish to obtain the good opinion of the public, as essential to our success in life; still we must admit that they are by no means the best and fairest judges either of our skill or reputation. All of us at times have been blamed where we really deserved credit; or, as once happened to myself, after a long, anxious, and at length successful treatment of an important case, have been deprived of our justly and well-earned meed of praise by some charlatan being called in at the eleventh hour, and falsely and shamelessly assuming the whole credit of the case. Harder still, if the slightest error or mistake in judgment is made, or is supposed to have been made, a medical man is now at once threatened with an action. If he succeed, he is half ruined by the costs; and if he lose, his reputation is gone for ever.

Under these and similar trials, we all naturally turn to our own profession for sympathy and assistance. They alone, who know the very delicate and responsible situations in which we are daily placed—more especially in consultation practice—can fairly judge us. They are, and ought to be, to every man his inner world, his home circle, within which praise or blame is deeply felt. To obtain the goodwill and esteem of the members of our own profession should ever be considered our highest and most legitimate reward. I have always thought that one of the great uses of our Association is that it forms, as it were, a high court of appeal, before which all important questions of medical conduct, either towards our patients or each other, may be fairly tried. They have the power, through their JOURNAL, of making the voice of the profession loudly and distinctly heard when any one of us acts in an unfair or unfriendly manner towards a brother practitioner; or when any one, however high in the profession, dares to tamper with any of the popular quackeries of the day. When I reflect what a high tone of professional conduct and courtesy towards each other has been insisted upon by our Association, I feel deeply the high compliment you have paid me in placing me in this chair.

Gentlemen, at so large a meeting as the present, attended by so many experienced men in large practice, I

have ventured to think it would not be unsuitable if I made a few remarks—and I will promise that they shall be very few—on a question of the deepest importance to us all; viz., the position which we occupy as a profession in public estimation at the present time.

If it be true, as I fear it is, that the public faith in the efficacy of medicine and medical treatment is much and unduly shaken, surely it is proper and manly to look the danger fully in the face, to endeavour to ascertain its cause, and to seek to provide a remedy. Well then, I think, much must fairly be attributed to the spirit of the age in which we live. It is a restless, changing, inquiring, almost sceptical age, with no reverence for authorities; no one fully believes anything; or, as Sir Edward Bulwer Lytton observes, "We want conviction." Coupled with the distrust of old-established truths, there is a morbid anxiety to stretch inquiries into new, untrodden, and dangerous paths; far away from the safe regions of our actual experience, into that unknown and mysterious spirit-world which an all-wise Providence has hidden from our eyes.

In inquiries like these there is such ample scope for the grossest imposture on the one hand, and the most childish credulity on the other; nay, minds of a high order, from the very sharpness of their faculties, most easily cut their fingers with these edged tools. Hence it is no longer a matter for wonder to find men of the highest talent and station believing in crystal globes, *clairvoyant* young ladies, spirit-rapping, table-turning, and the fearful effect of the millionth part of a grain of charcoal. It is by no means in our profession alone that this spirit manifests itself; not even the great and momentous truths of our religion are left unchallenged. It is now gravely asserted that, according to the revelations of modern science, it is quite impossible that many of the events recorded in the Bible could ever have taken place; and this, not by unlearned laymen, but by men, alas! holding the highest position in the church, men of deep learning and profound thought.

Another reason why the public at large are so easily imposed upon in medical matters, is that they are profoundly ignorant of the whole science, especially of its principles, and the nature of the evidence on which they rest. Medicine, not being an exact science, rests upon experience for its foundation. In investigating disease, we are obliged to draw our conclusions from a most careful balance of probabilities.

To establish any fact so firmly that it shall be generally received as true, and become a principle of medicine, requires a most extended series of observations, all accurately recorded and most carefully guarded against error. Now, the public know nothing of all this; nor of the enormous amount of time, labour, and talent, required to carry out these investigations. They hastily conclude, when a few cases get well after a particular plan of treatment, that it was in consequence of that treatment that they recovered; whereas the cure may have been effected entirely without reference to, and even actually in spite of it, by nature alone.

Thirdly, I cannot help fearing that we ourselves are not altogether free from blame in this matter. Public opinion ebbs and flows like the waves of the sea; the higher it rises, the further it recedes. If too much importance was formerly given to the mere administration of medicine, to the neglect of the general management of the patient, such as good nursing, attention to out-door exercise, diet, change of air, stimulants, etc., disappointment and consequent undue distrust of medical treatment was sure to follow. I do most sincerely believe that nothing has done more to lower us in public estimation than the old, and now happily nearly exploded, custom of making the payment of the practitioner depend solely upon the quantity of medicine which his patient took. It was a fiction, and all fictions are bad; for it is the time, skill, and experience

of a medical man that are really valuable; the drugs themselves are comparatively cheap. It lowers his proper dignity, converting a high and noble profession into a mere trade. It places the interest of a medical man and that of his patient in opposition; the one sending as much, and the other taking as little as he can—a position most painful to an honourable mind. It necessarily leads to the administration of medicine in frequent doses, and in a bulky and consequently unpleasant form; sometimes, as in the last stages of fever, actually taking the place of food and stimulants when these are most urgently required. I am aware that there are great difficulties in some neighbourhoods in carrying out fully the simple and sensible plan of charging so much for medicine, journeys, and attendance; but none, I am satisfied, which a little union among ourselves would not easily enable us to overcome, especially now the law gives us power to recover reasonable charges for attendance in a court of justice. I have a strong feeling myself that this is a matter of the deepest importance, and that we shall never occupy our due and proper position in public estimation until it is generally carried out; and it is for this reason that I have ventured to bring the subject—though rather a delicate one—before the meeting, in the hope that some more influential member of our Association may take it up, and may make it a recommendation to all its members to adopt it.

Lastly, and most important of all, the public will never respect us till we learn to respect ourselves. There must be no uncharitable fault-finding with each other; no stating one side of the case and withholding the other; no tampering with any of the foolish quackeries of the day, meeting their professors on equal terms in consultation, travelling with and being called in by them. I am sure that the rule laid down by the profession is right: to absolutely refuse to have anything to do with any of these systems or their professors. Depend upon it, the general cut of a whole profession is no little punishment. Any other course must necessarily lead the public to think that, in our opinion, one kind of treatment is as good as another. Twice lately have we been favoured with the presence of distinguished homœopathic practitioners in this city. To the honour of my medical brethren in this place be it said, not one of them took the slightest notice either of them or their system. By this wise course it was soon found that the air of our fens did not agree with their constitution, and they were both obliged to seek for change of air and scene.

One word as to our prospects for the future, and I have done. Our noble profession has already stood the attack of too many storms to make us fear a moment for its safety, provided we are true to ourselves. The only thing that makes homœopathy formidable is, that the arrow comes out of our own quiver; and that, under its specious garb, efficient doses of medicine may be and are daily given by regularly educated men. It is clear that an all-wise Providence, "in giving medicine to heal our sickness", intended it to be used, like all his other benefits, wisely, temperately, but efficiently. The power of medicine over our frame is mighty indeed: its administration requires the utmost prudence and caution. I confess honestly that the result of increased experience in the cure of disease is to make me adopt a less active treatment than I used to do when a younger man; and I think that this feeling is gradually gaining ground among us.

In conclusion, let our motto be, "Great is truth and it shall prevail"; and let us all endeavour, both in our investigation into disease and in our intercourse with our patients, to follow after truth with a patient, earnest, humble, careful spirit, and I feel sure that our noble profession will ever prove a source of honour to ourselves and an unbounded benefit to mankind.

British Medical Journal.

SATURDAY, JULY 25TH, 1863.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS OF IRELAND.

SOME remarks which we lately made respecting the power lately claimed by this College, of granting the degree of Doctor of Medicine, have called forth several communications on the subject. We stated that we considered the Licentiates of that College were, under the circumstances, *justified* in assuming the title of Doctor of Medicine; but we carefully avoided giving any opinion as to their legal right to the title. We said that we thought they were justified in assuming the title by the fact, that the College itself publicly declares it possesses the right of granting medical degrees; that the College publishes lists of its Doctors of Medicine; and that it defies all the world to interfere with its right. Of course, this declaration and affirmation do not give or make the smallest legal right to the thing; but certainly, coming from such high authority, they naturally lead members of the profession to seek the license of the College, under a full conviction that the College does actually possess the right in law which it claims to possess. What private individual would for a moment question the openly made claim of a great public corporation, or suppose that it would solemnly pretend to a right which it did not possess? We, therefore, have ventured to think that gentlemen who obtain the license of that College, under the distinct understanding that they also thereby obtain their doctorate, are so far justified in assuming the title thus solemnly granted them.

We again refer to the subject, because it is one deeply affecting the interests of the profession. The legal decision of the matter is one which is manifestly beyond our competence. As now placed, the College defies all attempts to dispossess it of the right it claims; and it is only by law, if at all, that such a right can ever be effectively disputed. It is, however, our duty to lay the facts of the case, as far as they appear, before the profession, so that any member of the profession, who may be turning his attention to the licentiatehip of the Dublin College, should see what is, *primâ facie*, the actual value of the claim of granting the degree of Doctor of Medicine, as well as of a license to practise, which is assumed by the College.

It seems strange, indeed, at the first view of the matter, that on so important a subject, deeply affecting the interests of the College, any doubts whatever should exist. But that they do exist is certain. Indeed, Licentiates of that College have themselves,

at different times, indirectly admitted the doubts by stating, in letters to the weekly journals, that they hoped a legal decision in a Court of Law would for ever settle the matter.

We are, indeed, bound to say that, in our mind, an impartial consideration of the facts of the case leaves the claim referred to of the College in an unsatisfactory position. Justice to all parties concerned requires that, in a matter of this kind, there should be no possible room for a second opinion.

That unblesed year of grace upset the minds and constitutions of several of our collegiate corporations; and it appears to have disturbed the routine life of the Dublin College, *inter alia*. We know nothing of the history of the matter—how the discovery of its power of granting medical degrees by the College was made. What we find is this, that in 1861 a declaration, founded on a legal opinion, is issued by the College, declaring that it has the power to grant medical degrees. And in conformity with this new claim was put forth a new form of admission and a new license. "By virtue of the authority vested in me as President, I hereby admit you a Licentiate and Doctor of Medicine of the King and Queen's College of Physicians in Ireland." And in the new license are inserted the words, "And do certify that he has obtained, and is hereby entitled to, the degree, title, and qualification of Doctor of Medicine."

When we look for the grounds upon which this important and serious claim is founded, we do not find them any where publicly stated; we mean in the course of the discussions on the subject which have been publicly reported. We find the College and its defenders assuming an attitude of defiance, but not declaring (as it may be said it is not called upon to do) the actual grounds, we mean, pointing out the terms of the charter, upon which the claim is founded. This claim, it must be remembered, is of quite a modern date. It came up, at least in this public way, after the famous year of grace. Previously, the King and Queen's College merely issued licenses to practise. The President admitted the candidate in these words: "By virtue of the authority vested in me as President, I hereby admit you a Licentiate of the King and Queen's College of Physicians in Ireland"; and the license itself contained simply a power of practising medicine, *licentiam medicinæ exercendæ*.

The College obtained from its counsel a legal opinion favourable to its Doctorate, and the College acted thereon, although that opinion was contradicted point-blank by other counsel.

But surely this is an unsatisfactory position for the College itself to be placed in. Colleges of Physicians ought to be, like the wives of Cæsars, beyond all suspicion; and surely a position of defiance, however boldly assumed and vigorously sustained, is no

proof of the possession of a legal right. We believe that our readers will agree with us that the profession ought to be fully informed of the grounds upon which the College assumes this newly exercised right. It has often been asked, but, as far as we are aware, no reply has ever been given to the question: "If you possess the right, why don't you publish the words of the charter upon which you found your right?"

We have thought it our duty in the interests of the profession to place before them the exact position of the case, and we believe that it is represented as follows.

In the first place, we find that the question has long been, and still is, an unsettled one—we mean, one which has been battled about in the pages of the medical journals, and still is battled about. Correspondence in our JOURNAL during the last two years plainly enough proves this. Licentiates also of the College themselves ask for relief from the doubts which overhang it. Thus, in the *Dublin Medical Press* of April 30th, 1862, we find a L.K.Q.C.P.I. asking that a clause should be inserted into a Bill then before Parliament,

"So as definitely to settle the right of those holding the license or diploma to the title of Doctor of Medicine, as set forth in that license, so as to appear as such in the *Medical Register*, without which the mention of it in the diploma is a complete farce."

Another correspondent, who also writes in favour of his College, in the same JOURNAL says:

"No one denies that a Licentiate of the College is entitled to 'Doctor'; but the disputed question is, Is he not an M.D.? It cannot be doubted but the doctor alluded to is Doctor in Medicine; but to have the matter finally and satisfactorily settled for ever, there can be no better opportunity than the present. I therefore heartily join in suggesting that something should *at once be done* for the object proposed, and that a petition to Parliament be signed with as little delay as the circumstances will admit of."

In the minds of Licentiates themselves, then, there clearly exists, or existed, a doubt; and the *Dublin Medical Press* in 1862, commenting on the subject, also admits a doubt.

"The Dublin College claims the privilege of conferring the title of Doctor on its Licentiates; and the only question regarding it is, whether it legally enjoys the right. We leave the question for argument by correspondents, because we have no power to decide it, and because no competent tribunal has been called on to express an opinion regarding it. The charter of the Dublin College of Physicians is a very peculiar one, but is not to be discredited on that account; royal charters are often found to confer peculiar privileges."

These doubts, it must be remembered, all come from Dublin itself.

But, more than this, even the College itself lays its case before men of the law; which fact must be fairly considered as a passive admission that the right is not altogether clearly and undeniably stamped on the very face of the charter. Its men of law, it is true, gave an opinion favourable to its

claim; the Attorney-General for Ireland laying down as follows:

"The two charters of the College, and the several Acts of Parliament bearing thereon, having been submitted to the Attorney-General, his opinion was requested on the following query: 'Whether the Licentiates, as such, of the King and Queen's College, are entitled to the degree and title of Doctors in Medicine, and to use the abbreviation or initial letters M.D. after their names?' Answer: 'I think the Licentiates and Fellows, as such, of the King and Queen's College of Physicians, are entitled to the degree and title of Doctors in Medicine, and to use the letters M.D. after their names. Signed, R. Deasy. Nov. 21st, 1860.'"

And it is on the strength of this opinion that the College in January 1861 adopt a new form of diploma, to the effect that the Licentiate "is hereby entitled to the degree, title, and qualification of Doctor of Medicine and Licentiate of the said College."

The next move taken by the College was to have the title acknowledged by the *Medical Register*; and the Registrar was, therefore, summoned to show cause in the Court of Queen's Bench why he refused to give to one Mr. Samuel Brown the title of Doctor of Medicine in the *Medical Register*. This summons, of course, brought into the field counsel on the other side. And accordingly, on January 31, 1861, we find an opposite opinion given to the Medical Council by Sir Hugh Cairns and Mr. Arthur Hobhouse:—

"Supposing the College to have no larger powers than are disclosed in the case laid before the Attorney-General of Ireland, we are clearly of opinion that it has no power to confer the degree of Doctor of Medicine; and without the degree there can be no right to title, to whatever extent it may have been conceded by courtesy," etc.

The College, therefore, as it appears, assumed and practised a right, on the opinion of its own legal advisers—the possession of which right was, *per contra*, distinctly denied by the opinion of the legal advisers of the Medical Council.

Next came an action against the Medical Registrar. He was called upon to give to Mr. Barker (on the strength of his being a Licentiate of the King and Queen's College of Physicians) the title of Doctor of Medicine in the *Register*. The judges, however, decided that such title could not be inserted in the *Register* in accordance with the terms of the Medical Act.

The College, therefore, took nothing by that move; but, as is asserted, it lost nothing in respect of its claim. We have nothing, said the judges, to do with this claim of yours; all we have to do is to decide that, according to the Medical Act, you cannot register as Doctors of Medicine. Whatever claim you possess in the M.D.-way is just as good after our decision is given as it was before. This, therefore, was a safe action for the College. If it won, it would have gained an undeniable right to its giving the title of Doctor of Medicine; and if it lost, its claim, it was said, remained untouched—at

least, in a legal sense. The Lord Chief Justice of Ireland, in giving judgment, said:

"It was not necessary for the Court to pronounce any judgment as to the power of the College to grant degrees; they had not given a degree of doctor of medicine in this instance, and, therefore, it was not necessary to introduce into this case any decision on that matter; whatever impression they might have upon the subject, the case did not turn upon that, and, therefore, the question was not to be considered as concluded by anything that passed in the present case. . . . A marked distinction was taken between medical men holding a degree from an university, and the licentiate of a medical corporation. Mr. James Barker had a diploma from the College of Physicians; but that was not any of the qualifications mentioned in the schedule entitling him to be registered as a doctor of medicine. A license and a degree from an university are mentioned; and this gentleman having only a diploma, or license to practise medicine generally, and not a degree from an university, was not entitled to be entered on the register as a doctor of medicine, not having brought himself within the qualification mentioned in the schedule. The circumstance that he was popularly treated and regarded as a doctor is not enough. What he desired, was to be regarded as a licentiate of the College of Physicians, and as a medical doctor, and there was no such privilege given by the schedule to a mere licentiate. He contended that there was a diploma which entitled him to what he sought; but suppose there was, and suppose that the College of Physicians had a right to grant a degree of doctor of medicine, they had not granted it."

Now, since this failure of the College to get a registrational recognition of its new claim, it has (as a claimant) in that way taken no further step. It has given out that it is ready to meet all comers in a court of law, and there leaves the matter. Flying skirmishes have, however, naturally been going on between unrecognised correspondents; but no regular settling blow has yet been struck. The College say: Come on and hit our men, if you dare; we are ready to fight you at law. The other side says: If you have the right, why don't you show your Charter, and tell us, in the language of the Charter, how the right runs. We are not going, as private individuals, to play Don Quixote, and fight you that way for the benefit of the profession at large. We think you should prove your claim, and not throw the *onus probandi* on others.

One gentleman, in defence of the Dublin College, says: Does not the diploma say we are Doctors of Medicine? and does not the President admit us as Doctors of Medicine; but to this it is, of course, readily answered: Yes; that is all true enough; but this tells dead against your case; for if you really have had the right for two hundred years, how comes it that you only took up this form of license and of admission in 1861? How is it that the licence granted and the terms of admission used up to that year were such as to lead to a contrary belief?

Another correspondent says:—"I cannot believe that the present eminent President, Dr. Corrigan, or any future President, will confer the title of Doctor

without having the authority for so doing." Another one says, If it be in your Charter, why do not you produce your Charter's powers. Such is the kind of small artillery which has been discharged; but we need hardly add, without finally settling the question.

We have given this historical, and we hope perfectly correct, sketch of the position of this question affecting the Dublin College; because it is only fair that the profession should have a means of judging how far the promises and gifts of the College are in accordance with its actual powers.

We must, without at the moment offering any opinion further upon the subject, candidly confess that we feel constrained, from a fair consideration of the facts before us, to conclude that the Dublin College would do well, for its own sake and in justice to its Licentiates, to obtain some positive legal decision on the subject, such as will for ever silence all the doubts and difficulties which have been and are suggested in reference to the right which it claims. We are sure that the profession at large will agree with us in the sentiment already expressed that no possible doubts ought to overshadow the claims which such a College as this puts forth.

THE WEEK.

THE laws and constitution of the Royal College of Surgeons are things, as Lord Dundreary would say, which no man can understand. The ignorance of the profession in general, and of the Fellows and Members of the College in particular, respecting them, is really something surprising. Every one, until we took the royal corporation in hand, seemed to have given the place up as beyond all hope, and therefore never tried to dissipate his ignorance in reference to it. Even the medical instructors—the press—who have followed us in our invasion of the assumed privacy of this great public body, are unable to get at or express the real facts of the case, or to comprehend them. Thus, for example, we find the *Lancet* again repeating the mistake which we have more than once pointed out; viz., that Mr. Cæsar Hawkins is an Examiner for life. Mr. Cæsar Hawkins neither is nor could be an Examiner for life. He is, like all others who have been made Examiners since the charter, elected to office by the Council. The history of the matter is this: To make the charter of 1843 acceptable to the powers which then were at Lincoln's Inn Fields when the charter came into force, all men in office at the time, whether in the Council or in the Court of Examiners, were, by a special clause, confirmed in office for life. Of the Examiners then in office, Mr. Lawrence is the only survivor. The very fact of Mr. Cæsar Hawkins presenting himself for re-election, the other day, to

the Council, shows that he was not even on the Council at the time of the establishment of the charter of 1843, and therefore, *à fortiori*, could not have been on the Court of Examiners. As we have already said, Mr. Hawkins is an Examiner by election, and holds office at the pleasure of the Council. In the meantime, he is the very first example of a Fellow not on the Council holding office as an Examiner. In his person the new order of things enjoined by the charter has been for the first time exemplified in practice. He now, by retaining the examinership whilst not a Councillor, takes the benefit of that clause in the charter whose existence he and his former colleagues in office at the College have heretofore persistently ignored!

On Tuesday last, the Liverpool testimonial was presented to Dr. Waters of Chester by Dr. Stookes, the secretary of the fund raised for the purpose. The testimonial consisted of a handsome silver claret-jug, on which was written an appropriate inscription, and a purse of £90. We need hardly say, that the gift to Dr. Waters was one ten times greater than the mere money value of it. It was a distinct recognition, on the part of his professional brethren, that he had been cruelly maligned; that his character and honour were untouched by the shameful accusation laid to his charge. It is, indeed, gratifying to be able to announce such genuine sympathy for an injured professional brother on the part of those medical men who are his immediate friends and neighbours. We venture to prophesy that the courage—the courage which an honest conscience could alone have shown in so great a trial—will not be without its reward. The darkest night is often followed by the brightest day; and if we are not much mistaken, the sympathy which has been excited towards Dr. Waters will produce a still brighter day than has ever yet shone on his professional prospects.

THE following flattering testimonial to the value of the services rendered by Mr. Clendon to the Westminster Hospital and its school as dental surgeon and lecturer, has been addressed to him by the medical officers and lecturers at that hospital, on the occasion of his retirement from the hospital and school. Mr. Clendon has during sixteen years faithfully, and with his well-known energy and earnestness, laboured as an instructor of medical students in the practice of dentistry. He has especially endeavoured to teach his pupils to regard the dental art as the business of the physiologist and of the surgeon, and not as a mere mechanical art. And we refer to this fact, because we know that Mr. Clendon has invariably insisted that there ought to be no distinction between the fundamental instruction of the student who devotes himself to dental

and of the student who devotes himself to general surgery. He never would admit that the teaching proper for the one was different from the teaching fitted for the other.

“Westminster Hospital, July 14, 1863.

“Dear Mr. Clendon,—We, the undersigned, medical officers of the Westminster Hospital, desire to express to you our sincere regret at your retirement from the office of surgeon-dentist. We equally regret that the laws of the hospital do not permit the governors to elect you consulting dentist; to which, after so many years service, your abilities eminently entitle you. We are not unmindful of the loss which both patients and students will sustain by your resignation; for you have always succeeded in gaining the confidence of the one and the esteem and respect of the other; for your dexterity as an operator has only been equalled by your success in imparting much of it to the students who attended your teaching. In wishing you health and happiness for the future, we sincerely trust that though our official connexion may have ceased, the friendship which has sprung from a service of so many years may be prolonged into many yet to come. With renewed assurances of our good wishes,

“We are very faithfully yours,

(Signed)

“BARNARD HOLT,
CHAS. BROOKE,
C. HOLTHOUSE,
W. A. HILLMAN,
HENRY POWER,
CHRIS. HEATH,

W. R. BASHAM,
GEO. T. FINCHAM,
C. B. RADCLIFFE,
FRANCIS ED. ANSTIE,
FRED. BIRD.”

THE approaching meeting of the British Medical Association at Bristol promises to be a great success. Our brethren there are making every effort to render the congress fruitful to science and agreeable to the members of it. Everything conspires to make this annual gathering a grand one. The situation of Bristol in the midst of a beautiful country, its immense importance as one of our great centres of commerce and population, and, above all, the celebrity and number of medical men who reside in and around it, cannot fail to make this assembling together a most important one.

THE Anti-Tobacco Society will weep over the customs imports returns for the first five months of the present year. The increase in tobacco is truly enormous. The quantity imported in the first five months of 1862 was 6,355,215 lbs. of unmanufactured and 514,499 lbs. of manufactured tobacco. The quantity in 1863 was 10,507,400 lbs. of unmanufactured and 815,070 lbs. of manufactured tobacco, making altogether an increase of 4,852,761 lbs. for the first five months of the present year.

WHETHER or not the criminal lunatic murderer shall be hanged, depends in the main upon the particular views of the judge who presides at his trial. A man, for example, who was lately, at the Central Criminal Court, acquitted of the murder of his wife and child on the ground of insanity, under the presidency of Chief Justice Pollock, would, as far as we can judge,

have been assuredly sent to execution by Serjeant Shee or Mr. Justice Wightman. The surgeon of Newgate, Mr. Gibson, said he was in a sound state of mind; but the Chief Justice was not satisfied with this. He wanted to know what was the state of the man's mind when he committed the murder.

ALL who are interested in the prosperity of our Association will be glad to learn that a Branch has been formed in Calcutta. In May last, a preliminary meeting of about thirty British and native practitioners was held; Dr. Norman Chevers, principal of the Calcutta Medical College, being in the chair. Dr. Chuckerbutty, to whom is due great credit for inaugurating the movement, gave an excellent address on the advantages of such an organisation as is presented by the British Medical Association, and proposed the formation of a "Bengal Medical Association"; which proposal was unanimously adopted. It is suggested that, to meet the circumstances of the profession in the country, the Bengal Medical Association shall consist in part of members who, being willing and able to pay, in addition to the local subscription, their guineas to the British Medical Association, will be entitled to receive the JOURNAL; and in part of members paying a local subscription only, and enjoying merely the local privileges of attending the meetings, etc. At the same meeting, a provisional committee was appointed, with Dr. Chuckerbutty as chairman; and it was determined to hold a general meeting for the adoption of rules and election of officers on June 17th. Fifty-two members had already joined the Association when the information which we have received was despatched. That the medical practitioners in Calcutta—both English and native—should so appreciate the benefits of the British Medical Association, as not only to form a similar institution among themselves, but to desire to affiliate their body to ours, is equally honourable to them and to the parent society.

A COMMITTEE appointed by the Royal College of Physicians at the wish of the Government, to consider the value of the evidence in favour of the contagiousness or otherwise of leprosy, have reported, that they have received sixty replies to the questions addressed by them (through the Colonial and Foreign Offices) to different colonies, as well as from places in Turkey, from Sierra Leone, Tunis, Cairo, Ceylon, Hong Kong, etc.; and also that they have received replies from medical men in England. In these replies there are forty-five decided opinions given that leprosy is not contagious; in nine, the disease is pronounced contagious, but no good evidence of the fact is adduced; in the other twelve, no opinion is expressed. The committee, therefore, consider that the weight of evidence is greatly in favour of

the non-contagiousness of leprosy; and that the replies given contain no evidence which justifies any measures being resorted to for the compulsory segregation of lepers. The effect of this recommendation will, of course, be to set at liberty any unfortunate individuals who may be kept in confinement under the idea of the contagiousness of leprosy, in any part of her Majesty's dominions. The result of the appointment of the Committee is an additional proof of the utility of such a body as the College of Physicians, to which the Government can refer questions demanding the application of medical science and observation for their solution.

THE College of Physicians of London have approved of the proposition submitted to them by the University of Oxford; viz., that the area of election of candidates for the Sherard professorship be enlarged; and have, therefore, given their assent to the following statute passed by the University:—" *Eligatur professor ex iis omnibus qui ad incipiendum in artibus admissi fuerint.*"

MR. SAVERY of St. Leonard's, who has so long been engaged in collecting meteorological facts relating to Hastings and St. Leonards, in a pamphlet, details facts which he considers prove the three following conclusions:—"1. That Hastings is warmer in winter than most other places; 2. That Hastings is cooler in summer than most other places; 3. That Hastings has a less daily range than most other places."

M. SAPPEY has lately made some interesting remarks concerning the mechanism of the act of vomiting in man. His remarks were founded on the observations made by Dr. Patry in the case of a boy eleven years old, who was injured by a bull, so that his stomach, spleen, and a part of the intestines, were exposed. The intestines were exposed for some time to the action of the sun and the air, so as in fact to have become dried up. From observations thus obtained, it would appear that the phenomena of vomiting proceed in the following order: contraction of the diaphragm; vermicular contraction of the stomach, commencing at the pylorus and passing up to the cardia; the moving backwards of the contents of the stomach towards the œsophagus; energetic contraction of the œsophagus; retraction of the stomach at each effort; dilatation of the cardia under the influence of the longitudinal fibres of the œsophagus; and, lastly, the filling of the œsophagus with the liquids of the stomach, and vomiting. M. Sappey gives the following theory of vomiting: 1. The act of vomiting is divided into two stages. In the first, the food passes from the stomach into the œsophagus; and in the second, it is ejected from the mouth. These two stages succeed each other rapidly, but are perfectly distinct. 2. Four organs are con-

cerned in the act—the œsophagus, the stomach, the diaphragm, and the abdominal muscles. These organs contract simultaneously. The contractions of the stomach are slow, gradual, and scarcely perceptible in some cases, though really present. The contractions of the other muscles concerned are highly spasmodic. 3. The part which each of these organs plays in vomiting depends upon its mode of action, and not upon its energy, as generally supposed. The contractions of the œsophagus act gently, driving the food progressively towards the mouth. M. Sappey shows that the disposition of the longitudinal fibres of the œsophagus dilate the cardiac orifice of the stomach. The food rises up into the œsophagus, whither it is driven by the contractions of the stomach; the food accumulates there until it reaches up the pharynx; and then follows the vomiting. M. Cloquet, referring to the case, remarked that, about thirty years ago, he operated on an old woman for an enormous strangulated hernia. The patient was found in the evening lying before the fire, with the bandages all removed. The intestines had escaped from the wound, and were lying on the carpet, and were completely dried by the fire. M. Cloquet reduced them; and the patient recovered rapidly and completely.

M. Huguier relates an unsuccessful case of ovariectomy to the Academy. The woman was removed from the hospital, and operated on at the house at Bellevue, which has been prepared by the Administration of Hospitals for the reception of cases of this kind. A number of cysts were found in the omentum, and complicated the operation, which lasted nearly an hour. The patient, a young Englishwoman, aged 20, died forty-five hours after the operation. Of six operations of ovariectomy performed by M. Kœberle of Strasburg, five have been successful.

M. Pajot, in a paper read by him to the Academy respecting pelvic malformations, concludes as follows:—1. If the infant is at full term and alive, and presents by the trunk, if the pelvic contraction is less than from 6 to 7 *centimètres*, and if external manœuvres to effect version have failed, the Cæsarean operation may be entertained. 2. If the fœtus is not at full term, and version is found impossible, the amputation of the arm will favour the evolution of the fœtus. Moreover, the section of the neck or of the trunk may be readily effected by a new proceeding (explained by him); and then the extraction of the fœtus will not be impossible if the fœtus is not much more than seven months old. 3. If the fœtus is dead, whatever may be the difficulties and dangers presented by the operations required to deliver the woman *per vias naturales*, the Cæsarean operation is quite inadmissible.

Dr. Fournié has related to the Academy of Medicine a case of transmission of syphilis through the means of a catheter used for the catheterisation of

the Eustachian tube. M. Ricord also saw the case, and gives the same view of it. He added the following startling remarks. "This is the fifth syphilitic patient whom I have seen come out of the hands of Dr. — (the Eustachian-tube doctor); one of the five was a married woman. All of them had been catheterised a short time before the disease appeared, which it did in the nasal fossa or the back of the throat. Being convinced that Dr. — introduced poisoned and dirty catheters into the nasal fossæ of his patients, I got a mutual friend to give him a hint; but he does not seem to have taken it." Dr. Fournié details the case at length, so as to bring the cause of the syphilis pretty clearly home to the nasal catheter.

Le Siècle tells us that the Court of Assize at Cagliari has condemned Dr. Angine to three months prison and 500 *francs* fine for having promulgated, in a surgical thesis, certain erroneous propositions relative to the wounds and death of Christ.

La dame Delinotte, attacked with apoplexy, dies in the hands of a magnetiser, who was said to have hastened or caused her death by his manœuvres. *Le Droit*, the journal which details the case, wisely enough remarks hereon:—"She died, says the legal doctor, through the treatment of the magnetiser; she died, replied the magnetiser, through the attentions of the two diplomatised doctors. *Ma foi!* it would have been better to have said that the patient, having reached her seventieth year, had arrived at the term of her existence." M. Gire, however, of the Magnetic and Electro-Magnetic Academy of Paris, is accused of practising medicine, not being a legal doctor. With the most charming of smiles, he informs the judge: "When I was called to this lady she was dying; I subjected her to my process, and in three-quarters of an hour she gave considerable signs of vitality, and on the following day she was walking about." The President: "And in ten days was dead?" M. Gire: "She had been persuaded to eat asparagus in oil, and I could not answer for that." President: "But you can answer for practising medicine, and for putting the letters D.M. after your name." M. Gire: "It is quite a mistake, M. le Président, I sign myself P.D.M., which signifies Professor de Magnetisme." Notwithstanding, M. Gire was fined 500 *francs*.

The use of the air-bladder of fishes still puzzles the *savant*. M. Moreau has just informed his Academy that, according to his experiments, it must be considered as an oxygen reservoir, filled for the sustenance of the life of the fish. Perch, when put in a situation in which they were unable to renew the oxygen of the air-bladder, were asphyxiated. The quantity of oxygen in the air-bladder diminished proportionably with the duration of the experiment; and when it arrived at zero, the fish died.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association will be holden at Bristol, on Wednesday, Thursday, and Friday, the 5th, 6th, and 7th days of August.

President—GEORGE BURROWS, M.D., F.R.C.P., F.R.S., London.

President-elect—JOHN ADDINGTON SYMONDS, M.D., F.R.C.P., F.R.S.Ed., Clifton.

All the meetings will take place at the Victoria Rooms, Clifton.

WEDNESDAY, August 5th.

1 P.M. Meeting of Committee of Council.

2.30 P.M. Meeting of the General Council.

4 P.M. First General Meeting of Members. The retiring President (Dr. Burrows) will make a few remarks. The new President (Dr. Symonds) will deliver an Address. The Report of Council will be presented, and other business transacted.

9 P.M. Through the kindness of the Committee, a *Conversazione* will be held at the Literary and Philosophical Institution, Bristol.

THURSDAY, August 6th.

11 A.M. Meeting of the Members of the New Council.

12 NOON. Second General Meeting of Members. The Address in Medicine will be read by WILLIAM BUDD, M.D. Papers and Cases will be read.

3.30 P.M. The Address in Surgery will be read by AUGUSTIN PRICHARD, Esq.

The Report of the Medical Benevolent Fund will be presented.

Papers and Cases will be read.

9 P.M. By the kind invitation of the President (Dr. Symonds) a *Soirée* will be held at his residence, Clifton Hill House, Clifton.

FRIDAY, August 7th.

12 NOON. Third General Meeting of Members. The Address in Chemistry in its Relations to Medicine will be given by WILLIAM B. HERAPATH, M.D., F.R.S. Papers and Cases will be read.

3.30 P.M. The Address in Midwifery will be read by J. G. SWAYNE, M.D. Papers and Cases will be read.

6.45 P.M. Dinner at the Victoria Rooms. Tickets One Guinea each. Gentlemen intending to be present at the Dinner are requested to send notice, as soon as possible, to Dr. MARSHALL, 8, The Mall, Clifton.

Members are requested to enter, on arrival, their names and addresses in the Reception Room at the Victoria Rooms, where cards will be supplied which will secure admission to all the proceedings.

Refreshments will be provided in the Victoria Rooms during the Meetings.

Members who wish for previous information may communicate with Dr. MARSHALL, 8, The Mall, Clifton.

The "Queen's" (situated close to the Victoria Rooms); the "Bath" (Clifton); and the "White Lion" (Bristol); are among the best hotels.

A clerk will be in constant attendance at the Victoria Rooms during the days of the meeting, and will give information regarding lodging-houses, which are numerous, and where beds may be had from two shillings a night upwards.

Papers have been promised by T. S. Fletcher, Esq. (Bromsgrove); Graily Hewitt, M.D. (London); Lionel Beale, M.B., F.R.S. (London); G. F. Burder, M.D.

(Bristol); W. O. Markham, M.D. (London); B. W. Richardson, M.D. (London); A. P. Stewart, M.D. (London); R. W. Coe, Esq. (Bristol); W. M. Clarke, Esq. (Bristol); G. D. Gibb, M.D. (London); Thomas Nunneley, Esq. (Leeds); C. B. Radcliffe, M.D. (London); T. K. Chambers, M.D. (London).

Papers and Cases will be read in the order of the dates at which notice of them has been received by the General Secretary.

PHILIP H. WILLIAMS, M.D., *Gen. Sec.*

Worcester, June 30th, 1863.

NEW MEMBERS OF THE ASSOCIATION.

THE following gentlemen have joined the Association since the publication of the list on March 7th.

BERKSHIRE.

Ellison, James, M.D., Windsor

BUCKINGHAMSHIRE.

Atkinson, Benjamin, Esq., Great Marlow
Terry, Charles, Esq., Newport Pagnell

CAMBRIDGESHIRE.

Hough, James, Esq., Cambridge
Latham, P. W., M.B., Cambridge

CHESHIRE.

Larmuth, John H., Esq., Sale Moor
Medd, William H., Esq., Stockport
Moreton, James E., Esq., Tarvin, Chester

DEVONSHIRE.

Lyle, Thomas, Esq., Devon County Asylum, Exminster

GLOUCESTERSHIRE.

Cubitt, George R., Esq., Stroud
Goodeve, Henry H., M.D., Bristol
Hawkins, Clement J., Esq., Cheltenham
Steele, Charles, Esq., Clifton

HAMPSHIRE.

Longmore, Thomas, Esq., C.B., Professor in the Army Medical School, Netley

HUNTINGDONSHIRE.

Wright, Thomas G., Esq., Stilton

KENT.

Alexander, Joseph, M.D., Edenbridge
Allfrey, C. H., M.D., Chislehurst
Armstrong, John C., Esq., Gravesend
Pateman, William, Esq., Folkestone
Bell, James Vincent, M.D., Rochester
Burton, Joseph S., Esq., Blackheath
Churton, Thomas, Esq., Erith
Duncan, Peter M., M.B., Lee
Fitzgerald, C. Egerton, Esq., Folkestone
Kinnear, C. R., M.D., Melville Hospital, Chatham
Martin, — jun., M.D., Rochester
Sanders, W., M.D., Gravesend

LANCASHIRE.

Bott, Thomas B., M.D., Bury
De Vitre, Edward D., M.D., Lancaster
Fitzpatrick, C. D., L.R.C.P.Ed., Liverpool
Hodgson, Samuel, Esq., Liverpool
Howitt, Thomas, Esq., Lancaster
Irvine, J. W., Esq., Liverpool
Johnson, Christopher, jun., Esq., Lancaster
Mould, G. W., Esq., Lunatic Asylum, Cheadle, Manchester
Twyford, E. P., M.D., St. Helen's

LEICESTERSHIRE.

Marriott, Charles H., Esq., Leicester

MIDDLESEX.

Blackstone, Joseph, jun., Esq., Gloucester Road, Regent's Park
Callender, George W., Esq., Queen Anne Street
Cooper, George, Esq., Brentford
Hill, M. Berkeley, M.B., Weymouth Street
Holding, C., Esq., New Broad Street
Radcliffe, Charles Bland, M.D., Henrietta Street
Semple, Robert H., M.D., Torrington Square
Teevan, William F., Esq., Portman Square

NORFOLK.

Smith, John C., Esq., Great Yarmouth
Woodhouse, William, Esq., Norwich

NORTHAMPTONSHIRE.

Pearce, J. W., Esq., Peterborough

NOTTINGHAMSHIRE.

Maltby, William, Esq., Basford
Taylor, Charles, M.D., Mansfield Road, Nottingham

RUTLAND.

Keal, J., Esq., Oakham
Keal, W., Esq., Oakham

SHROPSHIRE.

Griffiths, Griffith H., M.D., Church Stretton
Morgan, Thomas, Esq., Madeley

SUSSEX.

Caudle, A. W., Esq., Henfield

WARWICKSHIRE.

Anderson, W., M.D., General Hospital, Birmingham
Roberts, J. R., Esq., Children's Hospital, Birmingham
Rudd, T., M.D., Scots Greys, Birmingham
Sharman, Malim, Esq., Birmingham
Wilkinson, A. G., Esq., Birmingham
Woody, J. F., Esq., Tamworth

WORCESTERSHIRE.

Brunton, J. R., Esq., Redditch
Cooksey, William, Esq., Worcester

YORKSHIRE.

Anningson, J., Esq., Hull
Arden, Arthur O., Esq., Hull
Drew, Samuel, M.D., Chapeltown
Griffiths, F. T., Esq., Sheffield

WALES.

Jones, Richard, Esq., Flint
Thomas, Richard, Esq., Menai Bridge
Wolstenholme, J. H., Esq., Holywell

INDIA.

Beaton, W. B., M.D., Calcutta

NORTH WALES BRANCH: ANNUAL MEETING.

THE fourteenth annual meeting of the North Wales Branch was held on Tuesday, July 7th, at 1 o'clock P.M., at the Royal Hotel, Rhyl, under the presidency of Dr. LLEWELYN LODGE, of St. Asaph. There were twenty-one members present. Letters were received from several gentlemen, regretting their inability to attend, from urgent professional engagements.

Dr. G. T. JONES (Denbigh), the retiring President, addressed the meeting, and thanked the members of the Branch for the kindness and courtesy extended to him during the past year. He then vacated the Chair to the President-elect.

President's Address. Dr. LODGE then delivered an address, which is published at page 87.

T. T. GRIFFITH, Esq. (Wrexham), moved—

"That the cordial thanks of this meeting be given to the President for his address; and that he will be good enough to allow it to be published in the *BRITISH MEDICAL JOURNAL*."

T. F. EDWARDS, Esq. (Denbigh), having seconded the motion, it was passed with applause.

Report of Council. Mr. KENT JONES (Beaumaris), Honorary Secretary, read the following Report.

"In congratulating the members of the North Wales Branch of the British Medical Association upon the fourteenth anniversary of their Society, the Council, in their report, have to review some of the most prominent events which have transpired since the last annual meeting.

"The intermediate general meeting of this Branch, in accordance with a resolution adopted at the last annual meeting, was duly held on the 27th of January, and was attended by nine members. Although the attendance was small, there were four cases or communications brought forward, which elicited interesting discussion. They were the following:—

"1. On Diphtheria, followed by Ascites and Recovery. By T. E. Jones, Esq., of Llanasa.

"2. Case of Retention of Urine. By Ll. Lodge, L.R.C.P. Edin., of St. Asaph.

"3. Case of Occlusion of Vagina and Anus. By J. C. Davies, M.D., of Holywell.

"4. Case of Hermaphroditism. By J. Williams, Esq., of Holywell.

"It might be desirable to ascertain the feeling of this Branch as to whether the intermediate meeting shall continue to be held in the winter or later in the spring. Your Council think it would be advantageous to the Branch to continue the practice of holding the annual meeting a little before the great annual meeting of the Parent Association as is done by almost all the other Branches. This arrangement tends in a great degree to regulate and direct the sentiments and decisions of the British Medical Association upon all important subjects brought to their notice at the usual periods for deliberation.

"If, in their last report, your Council thought it necessary to comment with firmness upon the conduct of the General Medical Council under the Medical Reform Act, with respect to what they considered a dereliction of duty in dealing with the shortcomings of the Royal College of Surgeons of England, they would, on the present occasion, take leave to say that that public body, as the ruling authority in the profession, shows now a desire to do its allotted work fairly. They have, for instance, sketched out an amended Medical Bill, which promises greater protection to the legitimate medical practitioner, and will visit with more certain punishment the illegal practices of unqualified persons. They have also given us assurance that the new national *Pharmacopœia*, so long anxiously looked for, will soon be in our hands.

"Your Council have witnessed with much pain the conduct of medical men, some of them of high standing, rushing into courts of justice to ruin by their particular dogmas and opinions the character of their brethren as high and learned as themselves, who have been unfortunate in having been assailed by their ungrateful and wicked patients. This disgraceful proceeding appears to be on the increase; and it will be right to take action upon the matter at this meeting. The case of Dr. Waters, of Chester, is particularly worthy of notice; and your Council invite your cooperation in offering him a vote of sympathy upon the late trial, on which occasion he nobly vindicated his character from the base and most cruel aspersions sought to be cast upon it.

"Your Council have much pleasure in bearing testimony to the admirable manner in which the *BRITISH MEDICAL JOURNAL* is conducted by its spirited and talented editor, Dr. Markham; and to the bold and fearless exposure by him of all empiricism, whether called homœopathy, or known by other names. He justly merits the cordial thanks of the Association for having brought the *JOURNAL* to its present high moral tone, and for the scientific character of its contributions.

"The Treasurer reports that the funds of this Branch at the end of last year—viz., the 31st of December, 1862—exhibited a balance of £5:3:2. The half-crown subscriptions and arrears since received amount to £1:12:6, which will bring the total balance in hand to £6:15:8, to meet the expenses of the current year."

Dr. WILLIAMS (Wrexham) moved—

"That the Report of Council now read be received, adopted, and entered in the minutes."

Mr. DAVIES (Llanfairtalbairn) seconded the resolution, which was carried unanimously.

New Members. The following gentlemen were elected members of the Association and of the Branch:—Richard Thomas, Esq., Menai Bridge; Richard Jones, Esq., Flint; and J. H. Wolstenholme, Esq., Holywell. Dr. George Harvey Williams, late of Oswestry, and already for many years a member of the British Medical Association, was elected a member of the Branch.

Vote of Thanks to the Council of the Branch. It was moved by Dr. WILLIAMS (Mold), seconded by Mr. JONES (Carnarvon) and carried with acclamation—

"That the best thanks of this meeting be tendered to the Council of this Branch for the past year for their unremitting attention and valuable services."

President-elect for 1864. It was proposed by Dr. GEORGE T. JONES (Denbigh), seconded by Mr. EYTON JONES (Wrexham), and unanimously carried—

"That Dr. Williams, of Mold, be the President-elect for 1864."

Place for holding the next Annual Meeting. After some discussion as to the relative merits of several places, it was agreed that Mold be appointed the place for holding the next annual meeting.

Intermediate Meeting. Dr. DAVIES (Holywell) having in a most hospitable manner invited the members of the Branch, it was unanimously resolved that the next intermediate meeting be held in his house in the spring of next year.

Council of the Branch. It was moved by Dr. DAVIES (Holywell), seconded by Mr. THEED (Rhyll), and carried—
"That the following gentlemen constitute the members of the Council of this Branch for the current year, in accordance with the seventh bye-law; viz.—Thomas Morris, Esq. (Marford); Robert Jones, Esq. (Carnarvon); E. Williams, M.D. (Wrexham); E. T. Hughes, M.D. (Mold); A. E. Turnour, M.D. (Denbigh); T. Francis Edwards, Esq. (Denbigh)."

Representatives in the General Council. Upon the proposition of Dr. ROBERTS (St. Asaph), seconded by Dr. J. R. HUGHES (Denbigh), W. Williams, M.D. (Mold) and A. E. Turnour, M.D. (Denbigh), were unanimously elected to represent the Branch in the General Council of the British Medical Association.

Secretary and Treasurer. It was moved by Dr. G. T. JONES (Denbigh), and unanimously agreed to—

"That D. Kent Jones, Esq., of Beaumaris, be re-elected Secretary and Treasurer for next year."

Vote of Sympathy with Dr. Waters of Chester. Dr. WILLIAMS (Wrexham) moved, and Mr. JONES (Carnarvon) seconded the following resolution—

"That the expression of our warmest sympathy be conveyed to Dr. Waters of Chester, together with our feelings of regret, that he should have had to undergo so painfully anxious and expensive an ordeal as the late trial, 'Bromwich versus Waters'. And while we hold it to be the duty of every honourable man to further the ends of justice by faithfully speaking to facts, we deprecate in the strongest terms the dogmatic assertions in courts of law of mere opinions, founded only upon the statements made by interested and non-professional witnesses to the total disregard of the professional opinions, practice, and character of a brother practitioner."

After several members expressed their feelings upon the above resolution, it was put to the meeting, and was unanimously carried.

Upon the proposition of Mr. Jones (Carnarvon), Mr. Griffith of Wrexham was requested to act as Treasurer, to receive the subscriptions of the members of this Branch, in aid of the "Waters Testimonial Fund".

Papers, Cases, etc. The following communications were made:—

1. Extirpation of the Uterus. (The excised mass was shown.) By T. F. Edwards, Esq., Denbigh.
2. Nævus. By T. T. Griffith, Esq., Wrexham.
3. Dislocation of the Hip-joint reduced by Manipulation, in an Idiot aged 45. By E. T. Hughes, M.D. Mold.
4. Protracted Chronic Gastritis, with considerable Thickening of the Walls of the Stomach in the neighbourhood of the Pylorus. By O. Roberts, M.D., St. Asaph.
5. Nævus of the Arm. By T. Eyton Jones, Esq., Wrexham.
6. Communication between the Uterus and Bladder, with ultimate Recovery. By Robert Jones, Esq., Carnarvon.
7. Obstruction of the Bowels, where Gangrene of the Bowel took place, and six inches were expelled. By T. Francis Edwards, Esq., Denbigh.

Dinner. All the members, with Dr. Robert Lodge of Liverpool, and the Rev. Thomas Williams, rector of St. George, as guests, dined together at half-past three, and spent a very pleasant evening.

SOUTH MIDLAND AND CAMBRIDGE AND HUNTINGDON BRANCHES: COMBINED ANNUAL MEETING.

THE combined annual meeting of the South Midland and Cambridge and Huntingdon Branches was held at the Infirmary, Peterborough, on Thursday, July 9th; WILLIAM PALEY, M.D., President, in the chair. Forty-six members and visitors were also present.

Most of the gentlemen who attended were entertained at a sumptuous luncheon at Dr. Paley's house. Previously to the general meeting of the Branches in combination, a separate meeting of each Branch was held for the transaction of business.

SOUTH MIDLAND BRANCH.

The number of members of this Branch is now ninety-two.

President-elect. On the motion of E. DANIELL, Esq. (Newport Pagnell), seconded by J. G. LEETE, Esq. (Thrapstone), it was resolved that Henry Veasey, Esq., of Woburn, be the president-elect; and that the annual meeting for 1864 be held at Woburn in July.

The Committee of Management were proposed, seconded, and carried unanimously, to consist of G. Ashdown, Esq.; T. H. Barker, M.D.; E. Daniell, Esq.; J. M. C. Faircloth, M.D.; D. J. T. Francis, M.D.; J. G. Leete, Esq.; P. McLosky, M.D.; H. Terry, jun., Esq.; and R. W. Watkins, Esq.

Representatives in the General Council. The following gentlemen were elected representatives in the General Council of the Association:—Robert Ceely, Esq. (Aylesbury); Thomas Clark, Esq. (Wellingborough); Frederick Cox, Esq. (Welford); and John Francis, Esq. (Market Harborough).

Honorary Secretaries and Treasurer. Dr. Bryan of Northampton and Mr. Goldsmith of Bedford were re-elected Secretaries, and Dr. Bryan Treasurer, for the next year.

New Members. On the motion of Dr. PALEY, seconded by Mr. DANIELL, the following gentlemen were admitted as members:—E. H. Bolland, M.D. (Daventry); R. Death, Esq. (Buckingham); E. Dudley, Esq. (Yardley Hastings); J. Keal, Esq. (Oakham); W. Keal, Esq. (Oakham); D. Nixon, Esq. (Stony Stratford); C. Terry, Esq. (Newport Pagnell); and T. A. Warren, Esq. (Princes Risborough).

Autumnal Meeting. It was decided that the autumnal meeting be held at Northampton in October next.

CAMBRIDGE AND HUNTINGDON BRANCH.

At a meeting of this Branch, under the presidency of Mr. WELSH, the following resolutions were passed—

1. Proposed by Mr. MURIEL, seconded by Mr. HODSON—

"That it be left with the Council of the Branch to determine the time and place of the next annual meeting; also, to elect the President."

2. Proposed by Mr. GIRLING, and seconded by Dr. PINCHARD—

"That the retiring President (Dr. Paget); J. Hammond, Esq.; J. Carter, Esq.; G. F. Helm, Esq.; and the Secretary, form the Council of the Branch till the next annual meeting."

3. Proposed by Mr. HODSON, and seconded by Mr. HELM—

"That Dr. Paget and M. Foster, Esq., in addition to the Secretary, be the representatives of the Branch in

the General Council of the Association till the next annual meeting."

COMBINED MEETING OF THE BRANCHES.

The members of both Branches then adjourned from Dr. Paley's house to the Infirmary.

President's Address. On taking the chair, Dr. PALEY read an interesting address, which is published at p. 87.

Papers. The following papers were read:—

1. On Strumous Ulceration of the Face (*alias* Lupus) and its Treatment. By G. M. Humphry, M.D., F.R.S., Cambridge.

This paper was illustrated by several striking drawings; and considerable discussion took place thereon by Dr. Paley, Dr. Waller, Mr. Muriel, and others. The paper will be published in the JOURNAL.

2. On the Diet of Childbed. By Graily Hewitt, M.D., London.

This was a very interesting paper, giving the opinions of eminent accoucheurs and physicians, and advising a judicious departure from the accustomed routine of low diet indiscriminately, *post partum*, to a more generous one. Dr. Hewitt advised that there should be as little change as possible from the former habits of the patients; but that we should treat them in the manner to which they have been accustomed (if equal to it). Their temperament, and their feelings as to what they would like, should be consulted. If a patient desired food, he would give it according to inclination, more or less. Some interesting discussion took place by several gentlemen.

3. Clinical Notes of Ophthalmic Surgery. By H. Veasey, Esq., Woburn.

4. After this paper, the meeting separated; and several adjourned to another room to witness some excellent demonstrations of the laryngoscope by Dr. T. J. Walker, on himself and others. Dr. Walker gave these demonstrations very clearly and beautifully by means of a glass globe on a stem filled with water and a moderator lamp, throwing thereby a very clear and distinct light into the throat, and showing the epiglottis, rima glottidis, and vocal cords, very distinctly.

The Dinner. About thirty-eight gentlemen met at the Angel Hotel, and partook of a dinner, after which the usual toasts, loyal and otherwise, were given, and thus a most satisfactory meeting was concluded.

GOVERNMENT ENCOURAGEMENT OF SCIENCE. The total amount spent for purposes of education, science, and art in this country, is about £1,500,000.

SUBSTANCES WHICH SHOULD NEITHER BE HEATED NOR MELTED IN PLATINUM CRUCIBLES. According to Dr. Hager, the following operations cannot be performed: 1. The fusion of alkaline sulphurets, as well as the reduction by charcoal of sulphates of the alkalies and alkaline earths. 2. All operations which produce the disengagement of chlorine, bromine, iodine and fluorine; consequently platinum cannot be used for aquaregia. 3. All operations which involve the separation of silicic acid, which at a red heat acts on platinum and renders it brittle. 4. The fusion or heating of nitrates, especially those of the alkalies and alkaline earths. 5. The heating to redness of the caustic alkalies and alkaline earths. 6. The fusion of metals, especially those very fusible, as lead, bismuth, tin, and cadmium, and particularly when a red heat is used to reduce metallic oxides. 7. Heating to whiteness metallic oxides, which give up oxygen at a high temperature, as for example the oxides of lead, bismuth, nickel, copper, etc. 8. The heating of phosphoric acid and the acid phosphates with carbon or other deoxidising agents, because of the tendency to eliminate phosphorus which acts on the platinum. (*Jour. de Pharm. and Chemical News.*)

Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, MARCH 2ND, 1863.

A. BRYSON, M.D., in the Chair.

ON THE SUCCESSIVE EPIDEMICS OF YELLOW FEVER IN BERMUDE DURING THE PRESENT CENTURY.

BY W. R. E. SMART, M.D., R.N., DEPUTY INSPECTOR OF FLEETS AND HOSPITALS.

THIS elaborate paper contained a large amount of most valuable information, derived from the records of the Naval Hospital and other official documents on the spot, illustrative of the history of the consecutive visitations of the pestilence in these islands. The neglect of sanitary and hygienic precautions was shown to have contributed much to the diffusion and to the fatality of the fever among the garrison, naval depôt, ships of war as well as convict hulks, and among the general population. A fourth part of the troops perished in the epidemic of 1853; while in that of 1856, they were but slightly affected, owing in a great measure to the timely removal of the men from their barracks, and camping them out on healthy ground. Much of the mortality in some of our ships of war, of recent years, has been traced to overcrowding of the men on board and to unwise delay in not promptly landing the crew.

The paper excited a very lively interest at the meeting.

MONDAY, APRIL 6TH.

B. G. BABINGTON, M.D., F.R.S., in the Chair.

ON THE EPIDEMIC DISEASES OF TASMANIA.

BY S. HALL, M.D., OF HOBART TOWN.

Van Diemen's Land, or Tasmania, as it is now generally called, enjoys a highly salubrious climate, as evidenced by the extremely low death-rate among her rural population, this being under twelve per thousand. The town districts, of course, exhibit less favourable returns, in consequence, as the writer shewed, of the neglected condition of the lower districts, the accumulation of decomposing refuse, and the defective supply of pure water. Some of the public schools appear to stand much in need of amendment. The most frequent epidemic diseases hitherto have been some of the exanthemata, especially measles and scarlatina, together with hooping-cough. Typhoid fever, if not genuine typhus also, has occasionally carried off a good many victims. Malignant cholera has not yet been seen in the Australian continent or in any of the adjacent islands. The sickly state of several emigrant ships was dwelt upon.

Dr. HALL's paper was illustrated with numerous statistical and meteorological tables, reflecting the highest credit on his professional zeal and intelligence.

MONDAY, MAY 4TH.

B. G. BABINGTON, M.D., F.R.S., in the Chair.

ON THE INFLUENCE OF PANDEMIC CAUSES IN THE PRODUCTION OF FEVER. BY R. LAWSON, DEPUTY INSPECTOR-GENERAL OF ARMY HOSPITALS.

While engaged in examining the Army Statistical Returns of the sickness and mortality since their first publication, with reference more especially to the prevalence during certain seasons of malignant fever in Jamaica and other West India islands, the author's attention was drawn to the seeming connection, in point of either simultaneousness or sequence, between the manifestations of the disease in different countries or regions of the globe. By a careful analysis of the data bearing on the subject in the returns from the various military

stations in America, the West Indies, Mediterranean, Cape of Good Hope, etc., he was led to suspect that, from time to time, there are great febrile waves or currents passing over large portions of the earth's surface, and indicated by the more than usual prevalence and severity of fevers and kindred diseases along determinate lines, and within certain periods of time.

The subject well deserves the attention of epidemiologists. There may be far greater uniformity and regularity in the outbreak of zymotic diseases than is generally imagined.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 23RD, 1863.

R. PARTRIDGE, Esq., F.R.S., President, in the Chair.

OBSERVATIONS ON STERILITY IN MAN; WITH CASES.
BY T. B. CURLING, ESQ., F.R.S.

THE object of this communication was to show that a want of aptitude to impregnate may coexist with the capacity for sexual intercourse; or, in other words, that man is subject to *sterility* independently of *virility*.

The author stated that sterility in man may arise from the following causes:—

1. Malposition of the testicles.
2. Obstructions in the excretory ducts of the testicles.
3. Impediments to the escape of the seminal fluid.

1. *Sterility from Malposition of the Testicles.* The opinion of John Hunter, "that when one or both testicles remain through life in the belly they are exceedingly imperfect, and probably incapable of performing their natural functions," was corroborated in a remarkable manner by the facts adduced in this paper. After describing the condition of detained testicles, the author stated that the question to be considered was whether a testicle that has not passed into the scrotum can secrete a fertilising fluid. He assumed as quite established, that to possess this property the semen must contain zoosperms.

Having referred to the observations of Professor Goubaux on horses, and to those of Follin and Godard on man, the author remarked that the proofs adduced by these observers were not sufficiently cogent and numerous to establish the law that cryptorchies are infertile; and it could not be expected that assent should be given to results so remarkable and unexpected without evidence of the most convincing character. Opposite opinions continued to be entertained, and had recently been avowed by Dr. Alfred Taylor.

The author gave the particulars of two cases of double detained testicle in married men (cryptorchies) without children; and also two cases of single detained testicle, the second testicle, in one case, being completely atrophied, and in the other having been removed by operation. In all four cases the copulative powers were satisfactory; but the ejaculated semen was destitute of spermatozoa. He gave a table, which included these four cases and five others; three described by Godard, one by Puech, and one by the President of the Society, making nine in all, in which the fluid ejaculated by men with retained testicles was submitted to examination, and found to be destitute of spermatozoa. In confirmation of the results obtained in these cases, he deduced some observations made upon the lower animals by Messrs. Goubaux, Follin, and Godard; and he furnished a table of eight cases in which the fluid found after death in the substance of a retained testicle—in the epididymis or vas deferens, or in the vesicula seminalis on the side corresponding to the misplaced gland—had been examined and found destitute of spermatozoa. They had not been discovered after death in the sper-

matic ways of a detained testicle in any one instance that he knew of.

The facts which had been brought forward as opposed to the conclusion that cryptorchies are sterile, were chiefly instances in which they were reputed to have procreated children. Three cases were cited: one recorded by Mr. Poland, another by Mr. Cock, and a third by Mr. Durham. The author felt no little hesitation in calling in question the claims to paternity in these cases; but remarked that as yet no case had been found in which a retained testicle had been fully proved to be capable of secreting a fertilising fluid. The observations collected in the paper seemed sufficient to show that, as a rule, they do not; and though he saw no valid reason why there should not be exceptions, still the evidence was wanting to establish the exception in either of the instances of reputed paternity which had been mentioned.

2. *Sterility from Obstructions in the Excretory ducts of the Testicles.* After giving a brief account of Gosse's researches, in which he showed that after attacks of gonorrhœal epididymitis the channel for the semen is temporarily and sometimes even permanently obstructed, causing, when the epididymitis is double, sterility, the author related three cases occurring in his own practice, of permanent obstruction in the epididymis of both testicles in married men whose wives were barren. In all three the patients had vigorous powers; but there was a total absence of spermatozoa in the ejaculated fluid. The author insisted on the importance of careful and prolonged treatment in cases of epididymitis, to obtain the removal of inflammatory effusions.

The author remarked that the passage of the semen from the testicle might be prevented by congenital absence of the vas deferens, which, if double, would occasion sterility. A case of the kind, in which the testicles were sound, had been observed by John Hunter.

The excretory duct of the testicle is liable also to be interrupted by tubercular deposits in the epididymis. It is well ascertained that this part is much more frequently the seat of tubercle than the body of the gland, and is often extensively diseased, whilst the substance of the testicle remains sound. The author gave a case in point, in which the semen was destitute of spermatozoa.

3. *Sterility from Impediments to the Escape of the Seminal Fluid.* A close stricture in the urethra so completely interrupts the passage of the seminal fluid, that in the ejaculation it regurgitates into the bladder, where it mixes with the urine. In erection of the penis, the urethra becomes narrowed, so that a stricture which offers but a slight obstacle to the flow of urine may under congestion be sufficient to impede the emission of semen. The author had grounds for concluding that sterility from chronic stricture in the urethra exists to a greater extent than is commonly supposed. As the condition was one which is in most cases remediable, it was only necessary to call particular attention to it as not an uncommon source of infertility.

The author alluded also to a case in which he had reason to conclude that sterility was consequent upon inflammation and abscesses near the prostate gland, occasioning obliteration of the ejaculatory canals.

Two important and delicate questions arose out of these inquiries. 1. Whether a man who has the inclination and power to copulate, but who is nevertheless sterile, is justified in contracting marriage. 2. Whether this condition is a sufficient ground for a divorce.

That a man who is unable to fulfil the command, "to be fruitful and multiply" is right in disappointing the hopes and periling the happiness and perhaps health of a woman, could not, the author thought, be maintained by any casuist; and in some of the cases related in the paper he had felt it his duty to give advice in accordance with this opinion.

It could not be doubted that, in women ready for con-

ception, frequent sexual excitement without impregnation was very likely to prove injurious to health; and the author showed from the writings of Dr. West that diseases of the ovaries and uterus originate from this cause.

The second question was one upon which a surgeon was scarcely called upon to pronounce an opinion. But the author remarked that, as sterility in women is not considered an adequate cause for divorce, so the man ought not to pay such a penalty for unsuspected unfruitfulness.

CASE OF STRANGULATION OF THE STOMACH IN AN UMBILICAL RUPTURE, AND OF DEATH DURING ITS REDUCTION UNDER CHLOROFORM. BY CHARLES H. MOORE, F.R.C.S.

A corpulent woman, aged 60, was admitted into the Middlesex Hospital, under the care of Mr. Moore, with a strangulated umbilical hernia fourteen inches in diameter. She had been operated on for strangulation ten years before, by Mr. Wormald. She was greatly exhausted, having been vomiting six days and constipated three days, and having taken calomel and been leeches and blistered. She had vomited two gallons of fluid in the previous forty-eight hours. The pulse was 120.

A drachm of chloroform and four successive portions of forty minims each were inhaled during eleven minutes. The taxis was employed, and was twice interrupted—once by her coughing, once by vomiting. It was continued four or five minutes after the inhalation of chloroform was discontinued, and until about one-third of the hernia had been reduced. She was then so feeble that all but restorative measures were stopped; in four minutes more she was dead. Pulse and respiration continued uniformly, and failed proportionally until both ceased.

The cardiac and pyloric ends of the stomach were in the abdomen; the intermediate portion was fixed and constricted in the hernial ring. The cardiac portion was flaccid and empty; but was of enormous capacity. Many parts of its mucous membrane were gangrenous and black, and some were lacerated. These lacerations bore a definite relation to the oesophageal opening. The peritoneal coat near the spleen was also ruptured, and the back of the cardiac pouch was in one spot completely perforated. About a gallon and a half of black liquid, similar to that which had been vomited, lay in the peritoneum. The membrane was not inflamed, but the aperture through the stomach was partly black and pulpy, partly inflamed, partly infiltrated with the contents of the stomach, and a little ecchymosed.

The writer commented—1. On the unique character of the case—a complete strangulation of the stomach itself. None of the black fluid had passed into the small intestines, which contained air and a little yellow bile. 2. On the dilatation of the cardiac portion, to the inordinate distension of which he attributed the gangrene. 3. On the rupture of the stomach. The lacerations might have been traced to the taxis, had there been any mark of violence in the portions of the stomach within reach during that operation; but these seemed proved, by their radiated disposition with regard to the oesophagus and by the pathological changes in the principal rupture, to be due to vomiting. The perforation of the stomach might have been almost entirely produced by the vomiting, but might have been completed by the taxis. 4. On the cause of death. The importance of the case in respect to the toxic effects of chloroform and to the supposed sudden fatality of ruptures of the stomach was considered, and reasons were offered for assigning the result to neither separately, but to both, in common with the previous and great exhaustion of the patient. Finally, it was suggested that the stomach-pump might have relieved such a case with less danger than was involved in the use of chloroform and the taxis, though actual recovery was in the highest degree unlikely.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 3RD, 1863.

R. GREENHALGH, M.D., in the Chair.

Six gentlemen were elected Fellows.

SIMULTANEOUS UTERINE AND EXTRA-UTERINE GESTATION PROCEEDING TO THE FULL TERM.

BY L. R. COOKE, ESQ.

E. R., aged 39, who had had three previous natural deliveries, was taken in labour on December 8th, 1862. She had suffered no very unusual amount of inconvenience during her pregnancy beyond dragging pains, and an unusual sense of weight in the abdomen. On external examination, the abdominal swelling was found to have its greatest prominence considerably to the left side, and about on a level with the umbilicus; the whole tumour was also more circumscribed, well defined, and spherical in form than usual. The limbs of a fœtus were distinctly traceable through the abdominal walls, and a placental souffle was audible over a large portion of the tumour. A vaginal examination showed the canal much elongated, its rugæ obliterated, and the os uteri drawn up beyond reach of the fingers. Suspecting therefore an abnormal gestation, Mr. Cooke requested Mr. Spencer Wells to see the patient with him, and he attended with Dr. Kuman, of Vienna. It was thought there were two sets of fetal heart-sounds, while the extensive surface over which the placental bruit was heard gave a suspicion of two placentæ. Whether the fœtuses were both intrauterine, or an ovarian tumour was present also, was uncertain. At this time the pains were so slight and at such long intervals, that the patient was left, the bladder having been emptied, and a grain of opium administered, instructions being given to send for Mr. Cooke on the occurrence of expulsive pains or of any change in the patient.

She passed a good night, and the uterine pains were gradually reestablished during the next day. At six o'clock p.m. Mr. Cooke was sent for, and found her in strong labour. On making an immediate examination, the sacral concavity was now found occupied by a firm, resisting, rounded tumour, presenting no trace of fluctuation, and immovable under a very considerable degree of force employed between the pains. Its presence reduced the outer posterior dimension of the inlet to less than two fingers breadth, through which no os uteri was discoverable; but resting on, and anterior to the symphysis pubis, a small portion of the convex cranial surface of a fœtus was to be felt.

Dr. Greenhalgh and Mr. Meates, of Chester Square, saw the patient. The diagnosis was still a matter of doubt, because the tumour was not traceable abdominally, the uterus being in front more or less; and examined *per vaginam*, it might equally have been taken for a solid tumour or a pedunculated fibrous outgrowth from the uterus.

The obvious indication was to deliver the woman as speedily as possible, as the severity and frequency of the pain threatened rapid exhaustion of her strength, if not rupture of the uterus. Perforation of the head of the fœtus was considered inadmissible, from the almost impossibility of getting at it and fixing it; and because also, even supposing it accomplished, evisceration and dismemberment under the same difficulties would have been equally necessary.

It was decided therefore to put the patient under chloroform, so as to suspend the action of the abdominal muscles, in order to endeavour to displace the tumour and turn the child; and failing that, to perform Cæsarean section. The former being done, the tumour was pushed out of the vagina with some difficulty, and delivery completed by version. The placenta being removed, and the uterus not contracting satisfactorily, the

woman moreover being much exhausted, it was thought advisable to avoid any manipulation of the abdomen with a view to discover the nature of the remaining tumour. She never entirely rallied from the shock and exhaustion from the operation, and died within forty-eight hours.

The autopsy was made four hours after death. Dr. Greenhalgh, Dr. Kuman, Mr. Spencer Wells, Mr. Meates, Mr. Colborne, and Mr. L. R. Cooke being present. On opening the abdomen and reflecting the walls, the first thing revealed was the body of a full-grown female foetus contained in its proper membranes, which were unruptured, and distended with liquor amnii. The anterior or external surface of the chorion was perfectly smooth, and in immediate relation with the abdominal peritoneum. Beneath the tumour the uterus was seen, partially contracted and unruptured. There was a large quantity of greenish-brown grumous fluid in the peritoneal cavity. On opening the fetal membranes and removing the foetus, it was found that the placenta was situated in, and firmly attached to, a shallow capsule, formed of the expanded and enlarged fimbriae of the right Fallopian tube, which on its convex or peritoneal aspect was firmly tied down by numerous and very tough bands of old adhesion. A stylet could be passed along the tube to its expanded extremity, when it became arrested by the placenta.

The author remarked, that the lessons derivable from this case appear to be mainly that, in cases of doubtful tumours complicating parturition, it may be well to discover, as far as may be; 1. Whether there is any evidence of an extrauterine foetation, as soon as possible after uterine delivery.

2. Whether, in case of such a discovery, the probability is or is not that the adhesions of the tumour may be so firm and numerous as to render gastrotomy inadmissible.

3. Whether, supposing the existence of such adhesions to be admitted, it is advisable or justifiable to remove the foetus alone, with the certainty of a portion of the liquor amnii escaping into the peritoneal cavity, and with the possibility of the placenta becoming encysted and being thrown off at a future period.

Dr. GREENHALGH remarked that the case narrated by Mr. Cooke was most interesting in a diagnostic and practical point of view, and he believed was without parallel in the annals of obstetric medicine. He drew attention to the remarkable absence of abnormal symptoms during pregnancy, to the extreme anteversion of the womb, and to the influence of the labour pains in forcing the extra-uterine foetus from its position in the abdomen into the pelvis, and so occasioning an obstacle to the passage of the intrauterine foetus.

Dr. GRAILY HEWITT said that the case possessed very great interest, and was most unusual. The observation made by Mr. Wells as to the presence of two distinct sets of fetal heart sounds antecedently to the commencement of the labour was conclusive as to the fact that both the intrauterine and the extrauterine foetus were of simultaneous origin—were, in fact, twins; otherwise it would have been just possible that the extrauterine foetus might have been the product of some previous impregnation.

Dr. ROGERS could not agree with Dr. G. Hewitt in the supposition that the foetus found in the abdomen might be the product of an anterior conception to the one removed from the uterus. The facts stated by Dr. Greenhalgh, Mr. Cooke, and specially by Mr. Spencer Wells, proved, he thought, that the two were conceived at the same time, and were twins.

Mr. SPENCER WELLS said that Mr. Cooke had suspected the existence of an extrauterine foetus before he (Mr. Wells) had been called in; and it was the evidence of the presence of two living children, afforded by the sounds of two fetal hearts—one heard under the right false ribs, and the other in the left iliac region—which

had put them all off the track indicated by Mr. Cooke, as it certainly did not occur to them to suspect the presence of two children, both alive and at the full term, one within and the other without the uterus. He (Mr. Wells) had been called in on previous occasions of suspected extrauterine pregnancy, where it had been feared that gastrotomy might be necessary; but in every case the child had proved to be within the uterus; although, from the extreme thinness of the abdominal walls and uterus, in some cases the child seemed to be covered by scarcely anything more than skin. The only thing apparent in this case, uncommon in cases of twin-pregnancy, was the very loud sound of the placental murmur; and this might become a valuable indication in future cases. In this case it was supposed to depend upon the large size of the placenta. He (Mr. Wells) examined *per vaginam*, and thought he made out a breech presentation; but, as he had not practised midwifery for many years, he was not very confident about it, and advised Mr. Cooke, if he met with any difficulty after labour had fairly set in, to consult some experienced accoucheur.

Dr. ROGERS asked Dr. Greenhalgh what course he would have pursued had he known that the tumour he felt likewise contained a living foetus.

Dr. GREENHALGH replied, that had a living foetus been detected after the delivery of the first, and the patient's condition been such as to justify an operation, he should have performed gastrotomy, which would almost certainly have saved the child and given the mother as good a chance of recovery.

Dr. CLEVELAND wished to know whether the *post mortem* examination had revealed such a condition within the abdomen that, if gastrotomy had been performed soon after the birth of the first child, there would have been a reasonable probability of a successful result.

Dr. J. BRAXTON HICKS wished to know whether there was any trace of the old chorion villi upon the unattached portion of the ovum, as it was almost impossible to explain its free state, except that it must have been wholly included in the infundibular end of the tube up to the time of the formation of the placenta, and that by its growth it projected beyond it at a later period. He agreed with Dr. Greenhalgh as to the rule of excision of the child in such a case—namely, if the child were dead it would be best to leave it untouched, in order that adhesions might form—a point he had brought forward in the *Guy's Hospital Reports* upon two cases of extrauterine foetation he had operated upon. If the child were living, then it would be an important question whether it should not be removed by abdominal section, in the manner suggested in the above paper, stitching the edges of the opening of the cyst to those of the outer wound before removing the child, leaving the placenta to come away of itself.

Mr. COOKE said the surface appeared to be entirely free from traces of chorion processes.

Mr. SPENCER WELLS said the question raised by Mr. Cleveland as to the practice which ought to be followed in any similar case was one of great importance. Supposing it were known that a child at the full period of pregnancy was extrauterine, what ought the surgeon to do? He (Mr. Wells) questioned the morality of the principle suggested by the President and Dr. Hicks, that the rule of practice should depend upon the child being alive or not. If it were true that, when the child is dead, women, as a rule, live for many years, and do not suffer very much, it could hardly be right to subject a patient to a very dangerous operation on the slender chance of the child surviving. It seemed to him (Mr. Wells) that the life of the child was only one, and not a very important, element in the calculation. Experience was wanting to determine the ordinary duration of the life of the subjects of extrauterine pregnancy when left alone and when subjected to surgical operations, and each case must be judged by its own peculiarities. In

the case now before the Society, the question of operation had been seriously discussed over the dead body of the patient; and looking to the extensive attachments of the placenta and membranes, it was quite certain that the child alone and the unattached portion of membranes could have been removed. When the great liability of puerperal women to a low form of diffuse peritonitis was considered, it could hardly be expected that in this case the patient could have survived the slow process of separation of the placenta after the removal of the child, and it was very doubtful whether her life would have been lengthened or shortened by gastrotomy.

Dr. HICKS said that the value of the child's life varied much in the estimation of various practitioners. An important element in carefully weighing the relative risks of leaving or removing a live child was, that should any fluid escape into the peritoneal cavity, it would be much less irritating than if the child were dead.

Dr. GRAYLY HEWITT believed that to one at least of the questions raised by Mr. Spencer Wells a tolerably positive answer might be given. Was it justifiable to open the abdomen in order to extract a live extra-uterine fœtus? This question, as was evident from the observations which had fallen from others in the course of the discussion, would not meet with the same reply from all. To the other question—Was it justifiable to open the abdomen to extract a dead fœtus in a case such as that supposed, viz., just after the death had occurred?—he believed a decidedly negative answer should be given. There were abundance of facts on record showing that the dead extra-uterine fœtus may remain for years in the abdomen, giving rise to comparatively little uneasiness: in some cases during the whole of the rest of the patient's life, the woman in many cases during this time giving birth to a numerous progeny. And when steps were taken by nature to get rid of the foreign body, the evacuation was usually effected without much danger to the patient. It was therefore much the safer plan to allow the case to proceed without interference, and certainly at this juncture—viz., just after the death of the fœtus.

Correspondence.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SIR,—The question asked by "A Physician", in the JOURNAL of the 4th, implies a considerable doubt on his mind of the truth of the assertion of his College, "that he is entitled to call himself M.D." I do not hesitate to say that he is not *legally* entitled to call or sign himself M.D.; and that he has surrendered his apothecary's license for a supposed medical status which the King and Queen's College of Physicians in Ireland cannot legally confer—i. e., the degree of M.D. It is most lamentable to see the Council of this corporation holding out the inducement of M.D. to its Licentiates, when at the same time there is the decision of the Court of Queen's Bench, Ireland, *unrevoked*, against them. In answer to "A Physician's" inquiry addressed to the President of the King and Queen's College of Physicians, he receives an answer, "bearing the College seal, that he is entitled to call himself M.D., and that the College will protect him and try the question against all comers who may feel disposed to dispute the point." Why, sir, what can the profession think of a College which quietly sits down under the decision above referred to, and talks of *protecting* its Licentiates against all comers who may dispute this point? Why, then, does the College not protect them?

The Medical Registrar disputes the point; for he re-

fuses to register the Licentiates of the College as M.D.'s.

The editor of the *Medical Directories* disputes the point; for "A Physician" will find himself there recorded as "G.M.Phys."

Sir Hugh Cairns and Mr. Hobhouse gave it as their opinion, that unless this College possessed more powers than were submitted to the Attorney-General for Ireland, its Licentiates were not entitled to the M.D.

I have gone carefully over the various Acts of Parliament relating to this corporation, and also the charter; and neither give to this College the power of conferring on its Licentiates the degree of M.D. Indeed, its Fellows are obliged to obtain from some University (unless reduced to six) a *degree* before their *own* College can elect them into the fellowship. Would this be the case if the King and Queen's College could of *itself* confer the degree? Clearly not.

It is not to be supposed that any individual would be so Quixotic as to enter into law with this body corporate. This College has had an adverse decision on this very point by the highest legal authority in Ireland; and the *onus probandi* now rests with it. It owes this to its Licentiates; it owes it to its own dignity to prove legally what it asserts publicly; and by *mandamus* to compel the Registrar to insert upon the *Medical Register* its now excluded, and therefore valueless, title of M.D.

Some time ago, Dr. Foster and a Licentiate of this College wrote an angry letter upon some remarks I made with reference to its pretended degree. I candidly gave them my reasons, and challenged them to produce any clause from the charter conferring such powers. Their silence can only be construed into their inability to do so. Finding my statements were correct, they considered it most judicious to keep quiet.

I think "A Physician" may, without offence, ask for a sight of the charter of his College, and thereby satisfy himself of the truth of what I have here stated.

I am, etc., A.

SIR,—If the Irish College of Physicians can confer the degree of M.D., how is it that none of its Licentiates are registered as such? It is clearly the duty of the College officials to prove their right. They might as well affirm they possess the power to make Licentiates "Earls"; it could not be more ridiculed than "pretending" to confer University degrees.

I am, etc., COMMON SENSE.

MR. BOTTOMLEY AND VACCINATION.

LETTER FROM G. BOTTOMLEY, ESQ.

SIR,—It is my intention to correct the numerous misstatements made in the JOURNAL respecting my views upon vaccination.

It is stated in the JOURNAL of June 13th, that I was invited to attend a meeting of the Board of Guardians by their Chairman. This I positively deny.

I also deny that I said, "Doctors should work cheaply or for nothing." I am as strongly opposed as any man can be to gratuitous medical and surgical services.

It appears by the JOURNAL that Mr. Jaynes, the union medical officer and public vaccinator to the Croydon Union, said "he did not find fault with the fee paid by the guardians; the fault did not lie there." Then, I ask, where did it lie?

Boards of Guardians, no doubt, have many sins to answer; for which, I am ready to affirm, they may be compared to a felon who has committed many crimes, and a murder takes place in his neighbourhood. He may be accused; but if any one knew him to be innocent, it is but just that his innocence should be proved; but the one who comes forward to prove his innocence cannot be considered to be abetting the felon. So it is with Boards of Guardians.

Much may be said upon Poor-law medical relief—too much for me upon the present occasion; but it is well known that I formed one of the Poor-law Medical Relief Committee that held its meetings in Hanover Square, and for many years I sacrificed both money and time in its cause; and I did not give it up till I found it to be useless to proceed further, when the President of the Poor-law Board told me that there would be no advance in the salaries of the union medical officers so long as those appointments were eagerly sought for by legally qualified medical men. When a vacancy occurred in a union for a medical officer, there were plenty of applicants; therefore, they presumed, the pay was sufficient, and more particularly as the majority of the union medical officers neither assisted personally or by subscription. It is entirely in the hands of the profession. Once let the medical appointments to unions become vacant, then the government will do an act of justice to the profession and of humanity to the poor, but not till then.

And now for vaccination. I consider it a disgrace both to the government and the profession that we should in the present day be disputing about the fee for vaccination with Boards of Guardians, who never should have had the power given them of electing the misnamed public vaccinator. What, I would ask, is meant by public vaccinator? Is it one who is empowered by Act of Parliament to go into every house and request to vaccinate those who have not been vaccinated? That, I presume, is meant by the term public vaccinator. What say the profession and the public to so gross an act of injustice? It cannot be otherwise than an infringement upon the liberty of the subject, and an act of injustice to the mass of the profession. The public vaccinator pockets his 1s. 6d. or 2s. 6d. fee, and deprives the private practitioner of his regular fee of 10s. 6d. or £1 : 1, as the case may be. It is too monstrous to be permitted longer. Let the union medical officer vaccinate the children of the poor, and receive his 2s. 6d. fee for the certificate. It is not my wish, nor was it ever my intention, to deprive the union medical officer of sixpence. There should be no public vaccinator. Every medical practitioner should receive a fee for the certificate of successful vaccination, which fee should come through the Registrar-General's office. The subject is a national one; consequently, the state should pay the fees out of the public purse; they should not come out of the poor-rate.

In the ASSOCIATION JOURNAL of January 20th, 1854, will be found a letter from myself, the date of which is Dec. 26th, 1853, to the following effect.

"To the Editor of the Association Journal.

"Croydon, December 26th, 1853.

"SIR,—Vaccination is a national question; consequently, from the legislature ought to spring a consistent law for the purpose of carrying it out. The legislature having hitherto failed in its endeavours, it now becomes the duty of the medical profession to point out the defects of the Compulsory Vaccination Act, and offer a remedy. I should propose that the Registrar-General be placed at the head of the organisation for carrying out vaccination; and all matters connected with the subject should pass through his office. The plan I should submit to him would be, that the union medical officer should vaccinate the children of the poor, receiving the fee for the certificate; and that other medical practitioners should give the required certificates to their own patients in every case of successful vaccination, receiving the parliamentary fee for the certificate from the public purse; leaving the usual fee for vaccination to be paid by his patient. The fee paid by the state ought to be very clearly defined to be for the certificate, which should be paid by the Deputy-Registrar. The Poor-law Board and Boards of Guardians ought to have nothing whatever to do with it, so that the certificates to the

Registrar-General would give the number of cases vaccinated. Quarrelling with Boards of Guardians whether the fee should be 1s. 6d. or 2s. 6d. appears to me to be a complete waste of time. I petitioned both Houses of Parliament upon the subject when the former Bill was introduced. The Duke of Richmond presented my petition to the House of Lords, and his Grace quite agreed with me in its prayer, and kindly came up from Goodwood for the sole purpose of presenting it; and Mr. Alcock, one of the members for East Surrey, presented my petition to the House of Commons. I should propose that a deputation wait upon Lord Lyttelton, the introducer of the recent Act, to point out to him its defects and the certainty of its failure; then to wait upon the Registrar-General, and ultimately upon the Home Secretary. If at the same time the profession were to support the measure by petitioning both houses, good would result. It is painful to witness members of the medical profession quibbling and quarrelling with Boards of Guardians, who literally have it not in their power to render any assistance. The Act is put into their hands to carry out, and they have no alternative. Quarrelling with Boards of Guardians is degrading to the medical profession." (Signed) GEO. BOTTOMLEY.

If something like the above had met with support from the medical profession, the vexed question of vaccination would long ere this have been settled; and the trash about the spread of small-pox arising from the parsimony of Boards of Guardians would not have been countenanced.

Let the medical profession, promptly aided by the corporate institutions of the country, supported by the Medical Council, submit a plan to the government to frame an Act that would embrace all the requirements for the due performance of vaccination (as in Sweden and other places, where small-pox is now never heard of). It will then be the duty of the government to insist by an Act of Parliament the carrying out of a system that would render vaccination as beneficially protective as in other countries.

I am, etc.,

GEORGE BOTTOMLEY.

Croydon, July 15th, 1863.

P.S. Union medical officers are bound by their contract under the Poor Law to vaccinate the children of the poor without any additional fee—which portion of the Act has not been repealed, unless Lord Lyttelton's Act overrides it.

ON THE APPLICATION OF COLD IRRIGATION AFTER CATARACT-EXTRACTIONS.

LETTER FROM J. Z. LAURENCE, Esq.

SIR,—It may be taken as a well-ascertained fact that nine-tenths of the cases of extraction of hard cataracts that go wrong do so, not from any faults in the operation itself, but from the subsequent iritis and suppuration of the cornea, which so frequently mar the most skilfully executed operations.

Many attempts have of late been made to obviate these destructive inflammations. Schuft removes a portion of the iris, and then at once extracts the cataract by a small spoon. Mooren performs iridectomy, and in about a fortnight extracts the cataract by the old flap-operation; whilst Jacobson narcotises the patient by chloroform, extracts by the flap-operation, and then performs iridectomy.

I have myself tried all these plans. I agree with others in condemning Schuft's operation as a general procedure. Mooren's, on the contrary, I have found eminently successful; whilst of Jacobson's my present experience is too limited to enable me to speak authoritatively. But it is of an addendum to the *after treatment* of all these and other ophthalmic operations that I wish

to direct attention. Of one fact, my six years experience at the Surrey Ophthalmic Hospital has convinced me—that the only chance of saving an eye from destructive inflammation after an extraction is the instantaneous application of cold, the very moment the patient begins to feel the slightest sensation of *heat* in the eyeball. After severe pain has once set in, I have hardly ever succeeded in saving the eye. Leeches, ice, opium—nothing appears to produce any marked impression on this, almost peculiar, form of traumatic iritis and corneitis.

But I have lately employed an antiphlogistic agent, which certainly, if applied from the very onset, appears to me to exercise a very powerful influence—that is the system of cold irrigation. A wooden bracket is attached to the head of the bed; on this stands a vessel filled with water, which is kept constantly cold by immersed pieces of ice. From the edge of the vessel a few threads of lamp-cotton descend to within about half an inch of the patient's eyelid, over which is spread a piece of wet linen, which receives the drops from the cotton. This plan is superior to the alternate application of cold wet rags in several respects.

1. The temperature is thus kept *constant* in its degree.

2. The patient's head and eye are thus kept *perfectly quiet*.

3. The cold is *continuous*. The surgeon has not to fear any negligence in the application of the cold water, either on the part of the patient or of his attendant.

The irrigation system has not, as far as I am aware, yet been applied to inflammations of the eye, although its merits have been long recognised in general surgery; of its immense advantages over any hitherto employed means in such cases, I can speak from actual experience; and, therefore, I have felt no hesitation in recommending it to all those who have anything to do with the surgery of the eye.

I am, etc.,

J. ZACHARIAH LAURENCE.

June 18th, 1863.

CHOLERA IN INDIA. When the last accounts left Theyat-Myoo, two officers of the battalion, Captain Hazen and Surgeon Sparrow, and between thirty and forty men, had fallen victims to the disease, and cases were still frequently coming into the regimental hospital.

IRISH DISTRICT LUNATIC ASYLUMS. In the House of Commons, on July 17th, Mr. Blake called attention to the defects in the moral treatment of insanity in the great majority of Irish district lunatic asylums; and asked the Chief Secretary for Ireland whether the executive government of Ireland intended taking any, and what steps, to render those institutions less irksome to the patients and more conducive to their recovery. Sir E. Peel said that within the last few years a very considerable improvement had been effected in the management of the Irish district lunatic asylums, and the patients in those establishments were at present furnished with amusements and occupations which would necessarily form an important element in promoting their recovery. There were in Ireland sixteen of those asylums besides the central establishment in Dundrum. Those institutions were, he believed, admirably conducted, and there was attached to each of them a resident medical superintendent. Means were also being taken for the introduction into them of Turkish baths, which were found to offer great advantages in the curative treatment of the insane. In addition, sixteen district asylums he had mentioned were being constructed at Ennis, Castlebar, and Letterkenny; and ground had been purchased, and plans had been prepared for the erection of three more for the counties of Down, Monaghan, and Wexford. Amidst those improvements, he should neglect no efforts by which he could further promote the successful management of those establishments.

Medical News.

ROYAL COLLEGE OF PHYSICIANS. At a general meeting of the Fellows, held on Monday, July 20th, 1863, the following members of the College were admitted into the Fellowship:—

Budd, Richard, M.D. Edin., Barnstaple
Chance, Frank, M.B. Cantab., 51, Wimpole Street
Davis, John Hall, M.D. Lond., 11, Harley Street
Edwards, George Nelson, M.D. Cantab., 1, Finsbury Square
Harris, Francis, M.D. Cantab., 24, Cavendish Square
Hood, William Charles, M.D. St. And., Croydon
Meyer, John, M.D. Heidelberg, Broadmore, Wokingham
Sanderson, John B., M.D. Edin., 9, Gloucester Place, Hyde Park
Stone, William Henry, M.B. Oxon., 13, Vigo Street, Regent Street

At the same meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Brown, John, Oldbury, Birmingham
Forman, Elijah Baxter, Derby
Griffith, Gorréguér, 17, Stanley Terrace, Notting Hill
Hauser, Philip, M.D. Berne, Gibraltar
Kemphorne, Henry Law, King's College Hospital
Long, Frederick, East Derham, Norfolk
Medwin, Aaron George, Blackheath Road
Milsome, John Ruddle, M.D. St. And., St. Bartholomew's Hosp.
Taylor, Shepherd Thomas, Dilham, Norfolk
Terry, Septimus, 21, Cambridge Street, Falmouth
Thursfield, William, M.D. Aberdeen, Bridgenorth
Thurston, Edward Whitfeld, Asford, Kent
Trevan, Matthew, Fort Isaac, Cornwall
Wahlsch, Adolphe, M.D. Kieff, Cheetham, Manchester
Walhardt, Gustav Rudolph, Queensland

At this meeting, the following gentlemen were reported by the Examiners to have passed the first part of the Professional Examination for the License of the College:—

Brewer, Alexander Hampton, St. Bartholomew's Hospital
Brewer, Henry Melvill, St. Bartholomew's Hospital
Brockman, Edward Forster, St. George's Hospital
Broughton, Henry Todd, Guy's Hospital
Cavafy, John, St. George's Hospital
Clements, George, Middlesex Hospital
Compton, Thomas Annetriding, St. Bartholomew's Hospital
Duke, Oliver Thomas, Guy's Hospital
Eastes, George, Guy's Hospital
Eck, Vincent Frederick, St. Bartholomew's Hospital
Flkington, George, jun., Sydenham College, Birmingham
Evans, John Tasker, St. Bartholomew's Hospital
Fenn, Edward Liveing, King's College
Glynn, Thomas Robinson, St. Bartholomew's Hospital
Harvey, Walter Anstie, St. Bartholomew's Hospital
Jackson, George, University College
Lush, Wm. George Vawdry, St. Bartholomew's Hospital
Martin, Paulin, St. Bartholomew's Hospital
Mayou, Marmaduke John, Guy's Hospital
Paddon, George, Guy's Hospital
Savage, George Henry, Guy's Hospital
Smith, Charles, Guy's Hospital
Taylor, Francis Thomas, Guy's Hospital
Taylor, George Christopher, St. Bartholomew's Hospital
Taylor, Arthur, Guy's Hospital
Turner, Ebenezer Fulham, Guy's Hospital
Wood, Miles Astman, King's College
Wright, Charles James, Guy's Hospital

APOTHECARIES' HALL. On July 16th, the following Licentiates were admitted:—

Boutflower, Henry Crewe, Manchester
Etheridge, Charles, Stoke Ferry, Norfolk
Jackson, Thomas, Whitehaven
Spurway, Charles, Tiverton, Devon
Turner, Arthur Newnan, Bermondsey Square
Wearne, Vivian, Helstone, Cornwall

At the same Court, the following passed the first examination:—

Allen, Bryan Holme, University College
Brewer, Alexander Hampton, St. Bartholomew's Hospital
Brewer, Henry Melvill, St. Bartholomew's Hospital
Clements, George, Middlesex Hospital
Coxeter, James John, University College
Dalley, Charles Thomas, St. Bartholomew's Hospital
Freeman, Henry William, Middlesex Hospital
Mason, Philip Brookes, University College

Morris, Joseph, Anderson's University, Glasgow
 Shortland, Edward Peter, Guy's Hospital
 Passed as an assistant :—
 Burroughs, Thomas John, Union Street, Southwark

APPOINTMENTS.

ALLEN, Thomas, M.D., appointed Medical Superintendent of the Lunatic Asylum, Kingston, Jamaica.
 BRAMLEY, William S., M.D., appointed Assistant Resident Medical Officer to the Leeds Public Dispensary.
 *BRIGHT, John M., M.D., appointed Assistant-Surgeon to the Hospital for Women.
 CAPE, Lawson, M.D., elected Consulting-Physician to the General Lying-in Hospital, in the room of Sir C. Locock, Bart.
 *CLARKE, John, M.D., elected Physician-Accoucheur to the General Lying-in Hospital.
 COX, W. Sands, Esq., appointed Consulting-Surgeon to the Queen's Hospital, Birmingham.
 *DUNN, R. William, Esq., appointed Vaccinator to King's College Hospital.
 FOX, W. Tilbury, M.D., elected Physician-Accoucheur to the Farringdon General Dispensary.
 *HAYWARD, H. Howard, Esq., elected Dental Surgeon to the Hospital for Consumption and Diseases of the Chest.
 JEPSON, Octavius, M.D., appointed Resident Medical Superintendent of St. Luke's Hospital for Lunatics.
 *RADCLIFFE, Charles B., M.D., appointed Physician to the Hospital for Epilepsy, in the place of C. E. Brown-Séquard, M.D., F.R.S., resigned.
 SHEA, Henry G., M.D., appointed House-Surgeon to St. Bartholomew's Hospital, Chatham.
 SHILLITOE, Buxton, Esq., appointed Surgeon for Out-Patients to the Lock Hospital.

ARMY.

BARNWELL, Staff-Assistant-Surgeon T., to be Assistant-Surgeon Rifle Brigade, *vice* G. Baly.
 EVERETT, Staff-Assistant-Surgeon W., to be Assistant-Surgeon 39th Foot, *vice* R. Lindsay, M.B.
 IRVINE, Staff-Assistant-Surgeon G. N., M.D., to be Assistant-Surgeon 79th Foot, *vice* A. K. Drysdale.

To be Staff-Assistant-Surgeons :—

BALY, Assistant-Surgeon C., Rifle Brigade.
 DRYSDALE, Assistant-Surgeon A. K., 79th Foot.
 LANDALE, Assistant-Surgeon J., M.D., Supernumerary, 92nd Foot.
 LINDSAY, Assistant-Surgeon R., M.B., 39th Foot.
 SKINNER, Assistant-Surgeon D. S., Supernumerary, 92nd Foot.

ROYAL NAVY.

ATKINSON, R., Esq., Assistant-Surgeon, to Haulbowline Hospital.
 BRIDGFORD, Richard F., Esq., Assistant-Surgeon, to the *Cambridge*.
 CONINGHAM, Charles L., Esq., Assistant-Surgeon, to the *Wye*.
 CHANDLED, Cecil, Esq., Surgeon, to the *Leander*.
 GROVE, Samuel, Esq., Assistant-Surgeon, to the *Dauntless*.
 RIDINGS, William G., Esq., Assistant-Surgeon, to the *Formidable*, for Marines at Deal.
 YULE, T. M. A., Esq., Assistant-Surgeon, to the *Cumberland*.

MILITIA.

COUCH, T. Q., Esq., to be Assistant-Surg. Cornwall Rangers Militia.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers) :—

BELL, A. M., Esq., to be Assistant-Surgeon 1st Midlothian A.V.
 BOOTH, S., M.D., to be Surgeon 56th Lancashire R.V.
 BRADBURY, B., Esq., to be Surgeon 34th West Riding R.V.
 FIELD, A. G., Esq., to be Surgeon 1st Sussex R.V.
 SPEKCE, R., M.D., to be Assistant-Surgeon 1st Linlithgowshire R.V.

To be Honorary Assistant-Surgeons :—

BALLENEN, W., Esq., 4th Orkney A.V.
 THORPE, G. B., Esq., 1st Derbyshire Mounted R.V.

DEATHS.

BIRN, On July 14, at 1, Norfolk Square, aged 8 months, Edgar Albert son of Peter H. Bird, M.D.
 CARTER, Harry W., M.D., at Kensington Hall, Ashford, aged 75, or July 16.
 HILL, On July 16, at Ramsgate, aged 5 months, Helen E., infant daughter of Samuel Hill, M.D., Mecklenburgh Square.
 *ILES, Albert, M.D., of Fairford, at Cirencester, on July 12.
 *PARROW, George W. P., M.D., Surgeon 3rd Battalion 60th Rifles, at Theval-Myo, Burnmah, aged 41, on May 1.
 WALKER, On July 15th, at Darlington, aged 75, Elizabeth, widow of the late Thos. D. Walker, Esq., Surgeon, of Harworth-on-Tees.
 WENDERBURN, James, Esq., Surgeon, at 39, Craven Street, Strand, aged 43, on July 17.

DRUNKENNESS IN THE METROPOLIS. Two deaths in the past week are referred to intemperance, besides six to delirium tremens. (*Registrar-General's Report.*)

SOLAR ELECTRICITY. M. Samo-Solaro publishes a note detailing some experiments which have led him to believe that solar rays exert some electrical action.

MATERNITY HOSPITAL AT CONSTANTINOPLE. On June 1st, a meeting was held at Constantinople, at which it was resolved that a maternity hospital should be established, and should bear the name of Miss Nightingale. The proceeding was mainly carried out under the influence of the two well known benevolent persons, Sir Moses Montefiore, and his friend, Dr. Hodgkin.

SMALL-POX IN LONDON. The Registrar-General's Return last week show fifty-one cases of death from small-pox, twelve of which are stated to have occurred after vaccination. The mortality of the disease gives not much indication of decline; it is satisfactory to know, however, that it does not increase. Ten of the fifty-one deaths occurred in the Small-pox Hospital.

FOOD FOR AMERICAN POWDER. The total number of emigrants in 1860 was 128,469; in 1861 the number fell to 91,770; in 1862 rose to 121,214; and in the first six months of the present year the emigrants numbered 121,765, considerably more than the number for the whole of last year. The total emigration since 1815 has been 5,380,836 persons, of whom 3,238,579 went to the United States alone.

CONDEMNED MEAT. At the last meeting of the Commissioners of Sewers, Dr. Letheby reported that during the last fortnight, the officers had condemned 19,922 lbs. of meat as unfit for human food. It consisted of 61 sheep, 11 calves, 9 pigs, 75 quarters of beef, and 875 joints of meat, besides 203 head of game and poultry. 4,862 lbs. of the meat were diseased, 14,563 were putrid, and the rest was from animals that had died from natural causes.

MEDICAL OFFICERS IN THE ARMY. Mr. Blake asked on Monday last, on what grounds medical officers of the army were, by a late warrant, precluded from acting as Presidents of Boards of Inquiry, Boards of Survey, and Committees. The Marquis of Hartington said that the warrant in question was the result of an inquiry by a Commission, of which Sir B. Hawes was the president and Dr. Gibson a member; and the circumstances under which this decision were come to were such that the medical officers could not, he thought, feel it as a stigma.

GREAT COLD IN JULY. On July 19th, in the morning, the *minimum* register stood at 86°8'; Birmingham, and in the valley of the Thames, not far from Reading, on the 11th inst., the registering thermometer marked during the day 83° in the shade, and at night descended to 50°. On the 17th, the temperature fell to 36°, or 4° above freezing! On Saturday, the 18th, the thermometer actually registered 30°, or 2° below freezing; and at five o'clock in the morning the grass was quite white and crisp.

DISEASED SHEEP AND CATTLE. On Monday last, Mr. Hume, in the absence of Mr. R. Long, asked the Secretary of State for the Home Department whether his attention had been called to certain statements respecting the importation of diseased sheep and cattle, made by Professor Gamgee, in his inaugural address to the members of the New Veterinary College, Edinburgh, in January, 1862; viz., that "pleuro-pneumonia and epizootic form, whatever appeared in Ireland till foreign cattle were 'flectomy.'"; that "the maladies peculiar to British soil, which often very fatal, never arose above one or one and a half per cent. loss, and usually much less; five, six, and ten per cent. are a common yearly average now; and that last year we did not lose in England alone less than three times the amount of cattle we imported; and, if we calculate the loss over the three kingdoms, it will be found that for every animal we purchased from foreign dealers we did not lose less than six

or seven of our own." Whether the above statements are well founded, and, if so, what steps the government propose to take to prevent such evils for the future; and whether the reports of Professor Gamgee, made to the government on his return from the continent last autumn, would be laid upon the table of the House this session. Sir G. Grey said he had not seen the inaugural address alluded to, and therefore could not say whether the statements alleged to have been made in it were well founded. He understood that the report of Mr. Gamgee would be presented in a few days.

THE MEDICAL COLLEGE AT EPSOM. On the 22nd inst., the Founder's Day was celebrated at Epsom College by the half-yearly distribution of prizes. A large number of the relatives and friends of the pupils assembled at the college about one o'clock, soon after which service was held in the chapel, prayers being read by the head master, the Rev. Dr. Thornton, and at half-past two o'clock the visitors and boys adjourned to the school-room to witness the distribution of the prizes. The Right Hon. Lord Chelmsford, to whom this interesting duty was entrusted, occupied the chair, being supported on his right by Mr. Propert, and on the left by the Rev. Dr. Thornton. The prizes were distributed by Lord Chelmsford, who delivered an appropriate address to the successful candidates.

ASSOCIATION OF MEDICAL OFFICERS OF ASYLUMS FOR THE INSANE. The fourteenth annual meeting of this Association was held on Thursday, July 9th, by permission of the President and Fellows, at the College of Physicians. Dr. Kirkman resigned the chair to the President for the year, Dr. Skae of Edinburgh, who delivered an able address. There was a numerous attendance of members; among these were Dr. Conolly, Dr. Munro, Dr. Thurnam, Dr. Wood, Dr. Sherlock, Dr. Duncan, Dr. Fox, Dr. Herz of Vienna, Dr. Wollaston, Dr. Edgar Sheppard, Dr. C. Browne, etc. The resignation of Mr. Ley as treasurer was received with regret. The following officers were elected for the ensuing year:—*President-elect*, Dr. Henry Monro; *Treasurer*, Dr. Paul; *Editors of the Journal*, Dr. Lockhart Robertson and Dr. Maudsley; *Secretary for Scotland*, Dr. Rorie; for Ireland, Dr. Stewart; *General Secretary*, Dr. Tuke. Twenty-two new members were elected; and the following proposed as honorary members:—William Lawrence, Esq., F.R.S., Surgeon to Bethlehem Hospital; Dr. Delasiauve, Editor of the *Journal de Médecine Mentale*, Physician to the Bicêtre, President of the Société Médico-Psychologique of Paris; Dr. Girard de Cailleux, Inspector-General of Asylums in the Prefecture of the Department of the Seine; Dr. Moreau de Tours, Chief Physician of the Salpêtrière; Dr. Damerow, Physician of the Halle Asylum, Prussia, Chief Editor of the *Allgemeine Zeitschrift für Psychiatrie*. A carefully written paper on Private Asylums was read by Dr. Eastwood. Several other papers were on the list; but a long and animated discussion upon the questions involved in the removal of Bethlehem Hospital occupied the meeting. The members, upon the motion of Dr. Lockhart Robertson, seconded by Dr. Conolly, finally unanimously agreed to the following resolution:—"That the members of this Association have viewed with especial interest the question of the removal of Bethlehem Hospital to a site more adapted to the present state of psychological and sanitary science, and affording enlarged means of relief to the insane of the middle and educated classes in impoverished circumstances; and that they desire to express their concurrence in the representations already made to the governors of that important institution by the Commissioners in Lunacy. The members on the same day held their annual dinner at the Freemasons' Tavern; Dr. Skae, President, in the Chair. Among other guests were Dr. Bucknill and Dr. Hood, honorary members of the Association, Dr. Webster, Dr. Russell Reynolds, and Mr. Skae.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—JULY 18, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys.. 930 Girls.. 880 }	{ 1810 1964 }
Average of corresponding weeks 1853-62	1863	1223
Barometer:		
Highest (Mon.) 30.288; lowest (Sat.) 29.665; mean, 30.029.		
Thermometer:		
Highest in sun—extremes (Sun.) 124.5 degs.; (Th. & Sat.) 94 degs.		
In shade—highest (Wed.) 86 degs.; lowest (Fri.) 42.5 degs.		
Mean—61 degrees; difference from mean of 43 yrs.—0.7 deg.		
Range—during week, 43.5 degrees; mean daily, 26.8 degrees.		
Mean humidity of air (saturation=100), 68.		
Mean direction of wind, N.E.—Rain in inches, 0.00.		

TO CORRESPONDENTS.

*. * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

THE remarks on the New Army Medical Warrant shall appear in our next number.

Q.—We see no reason why a licentiate of a College of Physicians should not be consulting physician to a Sick Friendly Society, or why a licentiate of the Glasgow Faculty of Physicians and Surgeons should not hold such office. As to the last-named body, we believe that the charter makes the licentiates of the Faculty both physicians and surgeons. It does not, however, give them the title of M.D.

THE LONDON SURGICAL HOME.—We understand that the medical services rendered at the "Home" are gratuitous; but we really do not know the exact arrangements of the institution. Patients pay various sums, according to the quality of accommodation afforded them. We may add, that we should only be too glad to hear that the medical officers are paid. It is utterly incomprehensible to us that patients who can pay £2.10 per week for accommodation there, are unable to pay the doctor some sort of fee.

THERAPEUTICAL INQUIRY. No. III: OIL OF MALE FERN IN TAPEWORM.—In addition to those already acknowledged in the JOURNAL, Dr. Fleming has received schedules from:—Thomas Thompson, Esq., Queen's Hospital, Birmingham; Dr. Beddoe, Clifton; Dr. W. Cooper, Bury St. Edmunds; Henry Anderton, Esq., Wavertree, Liverpool; Dr. W. M. Kelly, Taunton; Vincent Jackson, Esq., Wolverhampton.

COMMUNICATIONS have been received from:—Dr. J. BIRKBECK NEVINS; Dr. MAYO; Dr. LODGE; Mr. R. PROSSER; Dr. WILLIAM PARRY; Mr. T. T. GRIFFITH; Mr. C. H. MARRIOTT; Mr. BOTTOMLEY; Dr. BEATSON; Dr. A. T. H. WATERS; Dr. HARTSHORNE; Dr. GIBSON; Dr. J. B. FITT; Mr. C. B. RENDLE; Mr. WILLIAM COPNEY; Mr. R. W. DUNN; Mr. D. K. JONES; Dr. W. COLE; Mr. MARCH; Dr. CORNACK; Mr. D. G. NIVEN; THE PRESIDENT OF THE EDINBURGH COLLEGE OF PHYSICIANS; Dr. FLEMING; Dr. J. WALKER; Dr. H. MARSHALL; and Dr. SWAYNE.

A Lecture

ON THE

ACUTE NECROSIS OF GROWING BONES.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN.

BY

THOMAS SMITH, F.R.C.S.,

ASSISTANT-SURGEON TO THE HOSPITAL.

[Concluded from page 81.]

THE *local symptom* of most note, and usually first in the general order of things in this disease, is enlargement of the limb, caused by subperiosteal effusion. This appears externally as a painful swelling of a firmly oedematous character, diffused in its outline, pallid in colour, or only faintly mottled over with red, and generally shining on its surface. The local symptoms will now perhaps begin to concentrate themselves around the articular end of the bone and neighbouring joints, which will be attacked by acute suppurative inflammation, as in the following cases; for one of which I am indebted to Mr. Marsh of the Children's Hospital, and for the other to Mr. Paget.

CASE XVIII. A boy, aged 2½ years, of weakly constitution, three weeks before admission complained that "his foot was bad," and became feverish and restless at night. The leg and lower part of the ankle became swollen and very painful. After a few days, matter was let out at the lower part of the leg.

When he was admitted, under Mr. Holmes, into the Children's Hospital, the leg, especially at the lower part, was swollen, oedematous, and red in patches. A probe could be passed through the opening that had been made down to bare bone. Next day, a collection of matter was let out higher up the leg, from over the tibia. The limb was intensely painful; there was no affection of the knee-joint. The following day, another collection was opened on the front of the leg. The bone was found bare; the periosteum thick, and raised from its connections by pus, which was thin and sanious in character. The child's health suffered much. The ankle-joint became the seat of abscess; and six weeks after his first attack, the limb was removed at the knee-joint.

The tibia from this patient, which I now show you, presents the following appearance. The lower epiphysis is dead, and lying loosely separated from its shaft, which latter seems to be necrosed in its whole extent; the upper epiphysis being unaffected. The periosteum is completely separated from the bone for about half its extent; elsewhere there intervene between it and the bone deposits of semi-ossified lymph. This patient eventually died, soon after the stump was healed, from an attack of acute pneumonia.

In this case, the lower epiphysal end of the tibia seems to have been first affected; since it was about this part of the bone that the swelling first showed itself; and after death, the softened, separated, and rotten condition of this part, seems to indicate that it has been longer dead than the shaft of the bone.

In the next case, taken from the *Guy's Hospital Reports*, the upper epiphysis of the tibia seems to have been first attacked.

CASE XIX. George E., aged 15, five weeks before admission, felt pain in his knee, which he thought resulted from a blow. Inflammation and suppuration followed at

the end of three weeks. The knee-joint became involved; and he died with symptoms of pyæmia.

The *post mortem* examination showed the tibia to be necrosed; the knee-joint disorganised; and evidences of pyæmia in the lungs, spleen, and kidneys. The iliac and femoral veins contained a softening clot.

CASE XX. The patient, a boy, aged 14, of strumous diathesis, on December 4th, 1853, a week before his death, jerked up a school-slate by the sudden action of the extensor muscle of his thigh, and suffered immediately afterwards from a little pain and stiffness in the knee-joint. He was ordered a blister; and, three days afterwards, as there was no improvement, leeches. The boy was no better for these; but, on the contrary, became delirious; the whole thigh swelled. On December 11th, more leeches were applied. The thigh at that time was much swollen, without redness. There was tenderness on pressure from the hip to the knee. The knee-joint was slightly distended, and the upper part of the leg a little swollen. The boy was feeble and sinking; and, in spite of ammonia and stimulants, he died.

Post Mortem Examination. The tissues of the thigh were loaded with serous effusion. The substance of the crureus muscle was studded with small purulent deposits of the size of pins' heads. The knee-joint contained about three ounces of bloody pus; and its synovial membrane was ulcerated in two places. The periosteum of the femur was highly vascular; it was easily separable from the bone along the inner side of the shaft; and at one point, near the inner condyle, its surface was highly granular for about the size of a shilling, and the corresponding part of the bone was roughened, as if from acute ulceration. The bone itself was redder and bluer than usual, especially in its lower half. The lungs were congested; and there were pins'-head spots of puriform deposits in the left upper lobe. The infundibula of the kidneys yielded a little pus-like urine on pressure; and some of a similar kind was found in the pelves of these organs.

More frequently, the swelling will extend along the shaft of the bone, matter will form beneath the periosteum, the surface will show here and there a patchy redness; and, if the patient survive, the pus will make its way slowly and most painfully to the surface, disclosing at the bottom of the abscess a bare bone and extensive separation of the periosteum. The shaft and epiphysis are rarely attacked together; and the former is much more prone to necrosis than the latter.

It is to be borne in mind that the bone found denuded in this disease is not always dead, nor will it necessarily die. Much of it will doubtless die; but one often sees fresh adhesions form between the periosteum and bone; such points of separation and reunion being marked by fresh deposits of new bone adhering closely to both. Periosteum above and bone below. This may be seen in some of the bones before me; indeed, the fact is familiar to many of you.

The local symptoms of this disease are almost unimportant, compared with the *constitutional irritation* which accompanies them. This is, as one might imagine, extreme in degree, and of that type to which one usually applies the term typhoid. But there is added to all this a worse evil, a more imminent danger; I mean that of *pyæmia* or *blood-poisoning*; and it is on this that I would specially dwell.

So soon as the subperiosteal effusion has taken place, which, as I said, was the first local change, from that time the patient's life is in danger from the liability to general infection of the blood. In an article on the Causes of Pyæmia, in *Guy's Hos-*

pital Reports (1861), Dr. Wilks says: "A cellulitis of a limb surrounding a bone is eminently effective in the production of pyæmia; and thus it has been thought that the implication of some part of the osseous system is a favouring cause for the purulent infection. This is highly probable from the perusal of our cases," of which he brings forward about one hundred and fifty; in more than half of these, some bone was implicated. I believe we may seek for the cause of pyæmia in these cases in the peculiar local conditions of the subperiosteal effusion. We may fairly conclude from the *post mortem* appearances, that the pyæmia has been occasioned in these cases by the introduction of some morbid material into the blood, whether it be decomposing lymph or blood, or whether it be pus; and that this admixture has taken place at the part affected is rendered highly probable by the frequency with which the *deep veins* of the limb are found plugged with fibrine in these cases. Now beneath the periosteum of a growing bone, when raised by effusion from its connexions, we have conditions most favourable for the admixture of pus or other decomposing material with the blood. We have in this disease, as one of the earliest changes, a collection of lymph or bloody serum, strongly disposed to undergo a suppurative change, bound down by the periosteum and all the superjacent textures of the limb, and as it were forced into the open mouths of the veins of the bone, which have been but recently torn from their connexion with the periosteum, and which, from their remaining connexion with the bone, are disposed to remain patent. If then pyæmic poisoning of the blood takes place, as I believe it often does, from the introduction of pus or degenerating lymph into the blood through the mouths of open veins, we have in this disease local conditions peculiarly favourable to such an introduction.

The infrequency in adults of pyæmia connected with acute periostitis and large subperiosteal effusions may seem to contradict the explanation I have offered you; but I believe that the very diminished vascular connexion (to which I have before alluded) between the periosteum and the bone, as age advances, is quite sufficient to explain the decreasing tendency to general blood-poisoning in these. Of the twenty-three cases reports of which I have collected, there were but two that escaped pyæmia—both of these recovered. Of the other twenty-one, all of whom suffered with well marked symptoms of pyæmia, but two survive; one of these now lies, some months after his first attack, in a garret in Gray's Inn Lane, with the pus streaming from sinuses in his forearm and thigh which lead respectively to the necrosed shafts of the corresponding bones;* the other, after suffering from secondary pneumonia seven months after the first attack, is reported, "Wound still discharging".

This pyæmia shows itself during life by the ordinary symptoms of rigors, profuse sweats, and rapid sinking; and, at death, leaves most unequivocal traces of its nature and identity in the pericardium, pleuræ, parenchyma of the lungs, kidneys, or liver, or in the larger joints. In the pericardium and pleuræ, as has been shown by Dr. Kirkes and others, we may find marks of acute adhesive inflammation, with a strong tendency to suppuration. In

the solid organs, we find yellow fibrinous-looking deposits in various stages of disintegration, either as firm yellow lymph or completely formed abscesses. As I before mentioned, the patient is exposed to the dangers of purulent infection quite early in the disease—indeed, so soon as effusion beneath the periosteum has taken place, and before the effusion has degenerated into pus. Thus in the case (No. 1) of the little girl to whom this femur belongs, though the *post mortem* examination disclosed pyæmia, no pus had formed around the bone.

How early in the disease pyæmia sets in, may be seen by noting the date of death in the twenty fatal cases I have here before me: in nine of these, death took place before the twelfth day.

Of the ultimate termination of this malady I can only speak in general terms. I have here the list of twenty deaths and only three recoveries. This proportion represents too strongly the fatal tendency of the disease, as many of these cases are recorded on account of the severity of their symptoms or their fatal termination. I can only say that, when once the disease is fully developed, and the periosteum is separated to any considerable extent from the shaft of the bone, the patient, if a young person, is in danger; and, should symptoms of pyæmia show themselves, the danger is imminent, though recovery is more possible than in adults. To show the power of recovery from this disease possessed by young people, I will read you the case of a young lady, aged 12, seen by Mr. Paget, who kindly furnished me with the following account.

CASE XXI. A young lady, aged 12, two days after exposure to cold, complained of pain in her right knee. In a day or two she became feverish; and the pain increased, and was referred to the lower part of the corresponding thigh. Leeches were applied; restoratives enjoined; and she took salines. A week after her seizure, she was seen by Mr. Paget. She was suffering from severe constitutional disturbance, sleeplessness, and occasional delirium. The whole of the right thigh was enlarged; the skin of it was smooth, and rather paler than the opposite limb. Deep pressure over the bone gave pain. The knee-joint appeared quite unaffected. The limb could be jarred without pain; but the patient could neither move it, nor bear it to be moved. She was ordered support, wine and nourishing diet, and iodide of potassium. Three weeks from the first attack, she was again seen. In the interval she had had, and was still suffering from the effects of, double pneumonia and inflammation and swelling of both parotid glands; and she had a gum-boil at that time. She had swelling on the right ankle-joint, and pain in her shoulders. She suffered from profuse sweatings; her pulse was 120. In a day or two the right lower limb became generally œdematous and swollen; and there was tenderness over the femoral vein, just as in phlegmasia dolens. After this, the left hip and knee joints were attacked with pain and great tenderness on pressure; the least movement causing her great suffering. Six weeks after her first symptoms, fluctuation was detected over the right femur; and two or three ounces of pus were let out. Subsequently there was a free discharge of pus from this opening; and, a month later, another abscess was opened just above the patella, containing a pint of pus. The case went on well; the discharge lessening, and the parts getting sounder, until the following April, the seventh month of her illness; when the right thigh became suddenly bent just below its middle, evidently from fracture of the shaft of the femur, whatever new bone might be around it. Subsequently the bone reunited, and she regained her general health.

* He has since died of exhaustion.

The last account I have of this case reports a wound still discharging in the thigh. Here recovery took place after symptoms which, I think, we may fairly conclude indicated general pyæmia.

I would for a moment draw your attention to the spontaneous fracture of the thigh which occurred in this case, just to remind you that this accident is an occasional though not a frequent complication of necrosis attacking the shafts of long bones.

The most serious *local lesions* of this disease are, necrosis of the bone to a greater or less extent, and destruction of the neighbouring joint by suppurative inflammation.

In the *most favourable* cases, the subperiosteal effusion will clear up without proceeding to suppuration, and the patient will perfectly recover. Of such cases we have seen here, in the out-patient room, four or five during the last two years. If suppuration take place around the bone, the danger to life is greatly increased; and, in the most hopeful cases, the patient will not escape without necrosis of some portion of the subjacent bone; but, as I before said, and as is well known to many here, the necrosed portion of bone will often bear no relative size to the amount of bone previously denuded. In *less favourable* cases, the loss of bone is greater in extent, and the suppuration may extend to the neighbouring joint. In *any case* where the necrosed portion of bone is large, convalescence will be most tedious, as in young bones ossifying lymph is quickly and abundantly poured out from the under surface of the periosteum, and the dead part is pretty closely and thickly encased, often before its detachment from the living bone is complete.

CASE XXII. A boy, aged 3½, was brought to me at the Children's Hospital, as his mother noticed that he was lame. There were pain and a firmly oedematous swelling over the lower part of the left thigh; there was great tenderness on pressure. He was admitted into the hospital, suffering from severe constitutional disturbance. A day or two after his admission, a swelling appeared on the left radius. On the fifteenth day of his illness, I made an incision in the deep parts of the thigh, and let out a quantity of pus from beneath the periosteum of the femur, which was found bare and rough. The swelling over the radius seemed to be subsiding; when his parents, thinking he was going to die, removed him from the hospital three weeks after he was first attacked. Six months afterwards, I saw him. Pus was streaming from three sinuses in the thigh, and from two over the left radius. The boy was emaciated and hectic. The parents not liking to part with him, and refusing to allow of any treatment, I saw no more of him, but heard of his death seven months after the commencement of his illness, from exhaustion—a termination which might, I believe, have been avoided, had the parents not refused to allow of any surgical interference.

I might well feel some diffidence in speaking to you of the *treatment* of this malady; but the less so, as I cannot but believe that the best general treatment for these cases is such as is suggested by the ordinary rules of practical surgery and the dictates of common sense. There are, however, one or two nice and more difficult points in particular instances, which are matters of opinion, and to which I shall direct your attention.

Following, then, the general principles of surgery, in the earliest stage we have periostitis with a subperiosteal effusion of lymph, liquor sanguinis, or

blood. Iodide of potassium internally, and leeches and fomentations externally, are the remedies which naturally suggest themselves; and such I have found to be the most efficacious. When suppuration occurs, or a suspicion of it arises, a small incision down to the bone may be made, to be subsequently enlarged, if matter be formed: to be closed at once, if no matter exist. *Very* early incision, unless suppuration has taken place, from my own experience I cannot recommend. As the admission of air to a collection of sanious lymph will often determine its suppuration, I would as well in these cases, where local suppuration were equivocal, be guided by the patient's general condition; and if rigors had occurred, and there was great constitutional irritation with great local tenderness, I would make an incision down to the bone.

Happily, the disease attacking either a shaft or epiphysis of a bone shows but little tendency to spread from one to the other; these parts, as I believe, having as it were separate centres of vitality, as well as of nutrition and growth. Still, occasionally it suggests itself, soon after the onset or during the progress of this disease, as it attacks the long bones of the lower limb, whether the patient's chance of recovery might not be increased by amputation; and on this point I would speak with some diffidence. So long as the disease is confined to the shaft of the bone, there can be no necessity for such treatment; but should the disease first attack the epiphysis, or should it subsequently invade that part of the bone, and should the joint (as is generally the case) be attacked by suppurative inflammation, two questions arise; first, and most immediate: How will the patient's strength bear up under this additional source of irritation? and, secondly: What chance of useful reproduction is there for a bone necrosed both in its shaft and epiphysis? The reply to the first of these considerations must be sought in the circumstances and condition of the patient in each individual case, and the question of amputation be thereupon decided. To the second I venture to answer myself, that if the shaft and one epiphysis be necrosed, there is but little hope of a useful reproduction of the bone; if the shaft and both epiphyses be affected, there is no hope of such restoration. Therefore, if the shaft of the tibia were affected with acute necrosis, and suppuration occurred in either the ankle or the knee joint, showing that the lower or upper epiphyses were also implicated, I should decide the question of amputation upon the constitutional condition of the patient. If, together with necrosis of the shaft of the tibia, suppurative inflammation attacked both knee and ankle-joints, I would amputate at once, provided the patient's constitutional condition allowed of it.

ALCOHOLIC DRINKS. In the year ending at Michaelmas last 94,908 persons—260 a day—were proceeded against before justices in England for drunkenness, or for being drunk and disorderly, and 63,255 of them were convicted. The great majority were only fined, but above 7,000 were committed to prison. The returns show a great increase over the previous year, for only 82,196 were then charged with drunkenness, and only 54,123 convicted. Of the persons thus charged in the last year 22,560 were females, and more than 10,000 women were convicted for being drunk. Coroner's inquests in the year 1862 found 211 verdicts of deaths from excessive drinking, 145 men and 66 women thus ended their days.

Illustrations OF HOSPITAL PRACTICE: METROPOLITAN AND PROVINCIAL.

ROYAL LONDON OPHTHALMIC HOSPITAL.

CLINICAL ILLUSTRATIONS OF CERTAIN FORMS OF AMAUROSIS.

Under the care of J. HUTCHINSON, Esq.

CASE I. *Right Eye lost Suddenly and Completely at the Age of Twenty: Atrophy of the Optic Nerve.* Mrs. Wilkinson, a widow, aged 48; fairly healthy, brown complexion, had very good health in early life. Her right eye had been quite blind for twenty-five years. She could not see shadow. "It went in her sleep one night; and she had never seen the least glimmer of light out of it since." It now looked outwards, and was also somewhat thrown upwards. The globe had been occasionally very painful since. She knew of no cause whatever for the loss of the sight. She was in excellent health at the time. She was under medical care for some time, and had much pain; was leeches and blistered. The other eye was also affected. She had since borne four children; and had three living, all healthy. She had preserved good sight in the left eye until within the last year.

The pupils were of equal size; rather oval vertically. The right dilated, when the left was covered, to four times its natural size, and remained dilated. It contracted immediately when the other was opened. The left pupil was of usual sensibility.

She said that the left eye ached; and that latterly everything had "appeared mystified," and "darkness sometimes came over it." She could read No. 6 (with the left eye), but not easily. She now lived by washing. She had small-pox in infancy; and measles very severely a year before the loss of her eye.

OPHTHALMOSCOPIC EXAMINATION. *Right Eye.* The optic disc was large, and very conspicuous as an abruptly defined circular plate of dead white. Its vessels were small, but not of extreme tenuity. I have seen them in other cases very much less. The whole fundus was deficient in blood-supply; but I did not notice any other peculiarity.

Left Eye. The vessels were larger and more numerous than usual. The optic disc was small and of a deep pink-brown tint. There were no patches. Excepting having a too abundant supply of blood, the fundus was in every respect normal. The contrast between the two optic entrances was most striking. The large dead white patch in the one, with its slender vessels, and the smaller, less conspicuous, highly vascular area in the other, were most dissimilar.

I judge the case to have been one of intracranial disease, followed by atrophy of the optic nerve; or, to be more precise, rather of some disorganising change in the optic nerve-trunk of the right side anterior to the commissure. I cannot else account for the changes, as seen in the fundus, being limited to the optic nerve. If the disease were central, the sight in both eyes would have been impaired.

It is to be noted that, although she had been unable to see with the right eye for twenty years, yet the iris retained its sensibility and activity, the pupil being of the same size as the other, and quite as active under sympathetic stimulation.

All the media were still clear, and the retina and choroid still normal. Although the eye diverged and looked upwards, yet there did not appear to be any muscular paralysis; and she could direct it easily.

CASE II. *Defective Sight from Childhood; Large Surfaces of Exposed Sclerotic at each Yellow Spot; State of Vision Stationary; No Special Diathesis.* Edward Stratton, aged 18, healthy-looking, never had any illness. His father had suffered from impaired sight. He was brought up from Cornwall in order to have an opinion as to his sight. I found that he could only just make out single letters of No. 20 with the left eye; but with the right he could slowly read ordinary print. His focal distance was short; and, in order to see clearly, he habitually turned his head on one side. The pupils were of normal size, and moderately active. There was no strabismus.

Under the ophthalmoscope, both yellow spots were found to be the seats of disease. The left was occupied by a very large circular white patch, which, at first sight, might have been mistaken for an enormous optic entrance, but which showed no emergent vessels. There were, however, one or two interrupted blood-trunks. At the margins of this were masses of black pigment. The patch glistened, and was evidently one of exposed sclerotic. The optic entrance itself was of normal appearance. In the right eye there was, near to the yellow spot, an irregular patch of very much smaller size; white in parts, and in others dotted with pigment. I had great difficulty in making him direct his eyes so as to expose the parts desired, as the yellow spots were no longer the parts with which he saw best. There was not the least reason for suspecting hereditary syphilis, or, indeed, any other special cause. The mother's history was that his sight had been defective all his life, and was not more so now than for years past. He had been able to pursue his school studies. I saw his elder brother, and he presented no indication of hereditary taint.

CASE III. *Large Patch of Subretinal Lymph in Right Fundus, with other smaller ones.* Mrs. Lack, fairly healthy looking, of dark complexion, aged 45, married, with two grown-up daughters; said that her sight had been failing for a year past; but until two months back she did not discover that the defect was in the right eye. With the right she saw all objects smaller, whether distant or near, *e.g.*, the clock-face looked smaller, but she could see it; around the candle-flame she saw a halo. She had been accustomed to work at needlework, but not lately. She never had pain in the globe, nor congestion. The pupils were of equal size, and active; vision was misty. From this account of symptoms we were scarcely prepared for what we found.

The pupil dilated widely with atropine. The fundus of the eye, optic disc, yellow spot, etc., in the right eye appeared normal; but, on making her look downwards, a large patch of greenish-yellow homogeneous lymph was noticed. This patch entirely concealed the choroid, and was crossed by the retinal vessels. The trunks of the latter were coated by margins of lymph. The margin of this patch nearest the optic nerve was abrupt; but that most distant was less so, and near it were numerous smaller patches and flakes of effusion. There was no history of any form of illness. She considered that she had always had good health.

CASE IV. *Atrophy of Retina and Optic Nerves (symmetrical), gradually Supervening after Small-pox.* Wm. White, aged 35, most severely pitted with small-pox, came complaining that his eyes were weak, and had been so since the small-pox. They had become worse lately. He had perfect sight until, to use his own expression, the small-pox fell in them. There was not the slightest corneal opacity; and the only noticeable circumstance was, that both globes were constantly oscillating in a rotatory manner. He thought that for sixteen or seventeen years he had not been able to read "because the letters all went into one." He cannot spell out No. 20. He had been able to keep at his work as a labourer, but only with difficulty.

He was not deaf, and had not suffered in any way, ex-

cepting his sight, since the variola. He had never been vaccinated. He had brown hair, and grey irides. It was twenty years since the small-pox. He was a thin, pale man. The irides were of good lustre.

The pupils dilated widely with atropine. The lens, humours, etc., were quite clear. The fundus oscillated in such constant motion, shaking like the head in paralysis agitans, that it was difficult to focus any part. Voluntary effort increased rather than diminished this; and when he was told to fix his eye on any object the fundus only shook the more. The optic discs in both were yellow white; large, with ill-defined margins, and extremely anæmic. Some of those who examined the eyes thought there were no vessels visible in one of them, and the merest threads in the other. I could, however, distinctly perceive vessels of extreme smallness in both. In both, the fundus was dotted over with patches of pigment. Both retinæ and choroids were atrophied. Considering the extent to which the disorganisation had proceeded, the wonder was that the man could see at all.

Original Communications.

OBSTRUCTION IN THE RECTUM CAUSED BY A CARCINOMATOUS TUMOUR; SUCCESSFULLY RELIEVED BY LUMBAR COLOTOMY.

By T. B. CURLING, F.R.S.

On Feb. 14th, 1863, Dr. West requested me to accompany him a short distance into Essex to see a lady who was labouring under obstruction of the bowels from a tumour in the rectum. We found her in bed, weak and depressed, and suffering from constant sickness. There had been no action of the bowels since the 9th. Mr. Davey of Romford, who was in constant attendance, met us in consultation, and gave me the following account of her case.

She was 36 years of age, the mother of eight children, and had always enjoyed good health, with the exception of an intermittent fever contracted in India, and a miscarriage six years ago. Her mother died of cancer of the uterus. At the end of September 1861, being then two months gone in pregnancy, she rode fifty miles on horseback, and immediately miscarried. There was no hæmorrhage or other untoward symptom, and she recovered almost completely in about three weeks. She then began to complain of bearing down and obscure aching pains in the uterus. There was no discharge; but the uterus was large and rather tender, and the catamenia were irregular. These symptoms persisted, more or less, until August 1862; when, during a visit to her native place in Scotland, she wrote word that she was quite well, and able to climb the hills and exert herself as well as ever. After one of these hill-climbing expeditions, she was suddenly taken with profuse menorrhagia and a return of her old pains. As these symptoms continued, she was advised to see Dr. Graham Weir of Edinburgh, who found the os uteri patent and ragged, bleeding freely when touched; the uterus hard and large, and but slightly moveable in the pelvis. He diagnosed cancer. After a residence of some months in Brighton and London, she returned to her home in Essex early in January 1863. At that time, the uterus was completely immovable, and of cartilaginous hardness; and a large scirrhous mass had formed in the anterior wall of the rectum, and compressed the bowel against the sacrum. There was constant tenesmus, and she had lost flesh and become very sallow. A fortnight afterwards, a recto-vaginal fistula formed; and with the exception of very small quantities of liquid

matter, all the fæces passed by the vagina. On Feb. 13, no fæces having passed by the vagina or bowel, and medicine having failed to obtain evacuations, Mr. Davey made an examination, and found both the rectum and the vaginal fistula completely closed, so that a No. 6 male catheter could not be passed. Dr. West was summoned, and concurred with Mr. Davey in the necessity for an operation.

After my arrival on the following day, I made a careful examination of the rectum, but could find no passage, the bowel being obstructed by a solid hard tumour of considerable size. The sickness and depression rendered the case urgent, and an immediate operation was decided on. Chloroform having been administered by Mr. Davey, the colon was opened in the left loin. The bowel was reached without difficulty; but it was contracted and deeply seated, so that it had to be dragged to the surface before being opened. The margins of the opening in the bowel were secured to the skin with three sutures. The irritability of the stomach quite ceased by the following day; and on the 16th, she was able to take food freely. There was a free faecal discharge from the loin.

On the 18th, her general condition was much improved. The bowel had sunk, so that the opening was deeply seated, the skin attached to it being inverted, which continued until the sutures ulcerated through. The wound, however, went on well, and became gradually reduced in size and depth; and after a month there was a slight tendency to prolapsus.

Towards the end of March, a fistulous communication took place between the bowel and bladder, and the urine escaped freely by the wound in the loin; only a small quantity of flatus and urine tinged with fæces passing through the urethra. She became gradually weaker, and died of the cancerous disease on May 9th, having survived the operation three months.

Mr. Davey wrote to me that she was almost entirely free from pain after the operation, and improved very much in spirits, complexion, and general condition; and about six weeks before her death she could walk about the house, and went out daily in a Bath-chair. The wound in the loin was perfectly healthy in appearance, and had contracted to about three-fourths of an inch in diameter. The aperture in the colon was round and smooth, and afforded ample room for the escape of solid fæces. The mucous membrane sometimes prolapsed to the extent of an inch. The body was not examined after death.

This is the eighth case of lumbar colotomy in the adult which I have performed or assisted in; and of these, five survived and derived advantage from the operation. In this instance, life was prolonged some months—not, indeed, without serious drawbacks, owing to the continuance and advance of the carcinomatous disease; still it must be remembered that the operation was unattended with pain, and was followed by an early relief of distressing symptoms. The success which has attended the operation of lumbar colotomy in persons weakened by organic disease and want of nourishment, shows that it is not so formidable and dangerous as is commonly supposed. The inconvenience of an artificial anus in the loin is not considerable, and is far less than what is caused by the incontinency which usually exists in cancer of the rectum.

ARTIFICIAL ANUS.

By THOMAS O'CONNOR, Esq., March, Cambridgeshire.

I was called on May 28th, 1862, to A. C., a woman 65 years old, of very thin spare habit and unhealthy aspect. She had a fall down stairs a week before; she rolled from the top to the bottom of the stairs; and from that time complained of pain and tenderness in the belly,

with frequent sickness. This story suggested that there might be a hernia. I asked if she had a swelling in either groin; to which she replied she had not. I, however, placed my hand on the usual situations of rupture, and found a swelling of about the size of a large hen's egg in the left groin, which I assumed to be an oblique inguinal hernia. I told her she was ruptured; and that this, no doubt, was the cause of her suffering.

I proceeded to reduce the hernia by the hand. After about twenty minutes manipulation the swelling disappeared, having given clear and unmistakable evidence, as I thought, of the return of a protruded bowel into the cavity of the abdomen. The bowels had not been relieved for two days. I gave a black dose, which acted freely during the night and next day. I then advised that a truss should be worn. Being an exceedingly modest person, she would not trouble me to adjust a truss; she said she could do that herself, with the assistance of a neighbour who had some experience in trusses in her own person. I sent three or four sizes for her to choose from, called in two days, and found her very comfortable with her truss.

My visits now ceased, but in a week (June 7th) she again sent for me. The truss hurt her, and she asked whether I would exchange it for another. She was now suffering from an acute attack of diarrhoea. I removed the truss, and found a hard swelling, considerably larger than the former, and, it appeared, higher up. Having carefully examined this, I pronounced it an acute abscess, and treated it with leeches, evaporating lotions, and subsequently with poultices.

On June 12th, the diarrhoea was less severe. On June 15th, the eighth day from the leeching, fluctuation was distinct; but, as the abscess pointed, I did not open it. On June 17th (the tenth day), on placing my finger on the apex of the tumour, I discovered a rough pointed substance, which I extracted with a forceps, and found it to be a triangular piece of bone, about half an inch long. This was followed by about half a pint of foetid purulent fluid, mixed with blood and flakes of curdy matter. I filled the cavity with lint.

On June 20th, the diarrhoea ceased; the bowels soon becoming constipated, and requiring the occasional use of aperients. The strength also began to falter. I ordered bark and acids, port wine, and beef-tea.

On June 23rd, air escaped from the cavity in considerable quantity. On the 24th, faeces were mixed with the secretions.

Sloughing now commenced, and extended in every direction, demolishing in five or six days the whole of the soft parts in a line leading from the anterior superior spine of the ilium inwards to the linea alba, downwards to Poupart's ligament, and backwards to the bowels, a considerable track of which became exposed. The external iliac artery was denuded, and the common iliac was reached with the finger. An opening into the cavity of the abdomen was formed, large enough to receive a pint slop-basin. Large quantities of faeces now passed through this opening, and very little *per anum*. Having a suspicion that an accumulation might have taken place in the lower colon or rectum, I injected some tepid water, with a view of clearing the bowel. With the first stroke of the piston, the stream passed out through the artificial opening; it was, therefore, probable that the sigmoid flexure was the part of the bowel involved in the new anus.

The treatment consisted in filling the cavity daily with lint dipped in oil, placing over it a stiff linseed poultice, crossed in two or three places with adhesive plaster, and secured with a light flannel roller. About a pint of tepid water was injected into the bowel *per anum* twice a week. The medical part of the treatment consisted of opiates at night to procure sleep, of which she had a scanty measure; bark, quinine, acids, and wine, in large quantity.

On July 10th, the artificial anus had its sphincter fully developed. The circular fibres of this muscle mimicked very prettily those of the sentinel of the natural outlet. On July 16th, very little faeces passed through the artificial opening. The lint was no longer placed in the cavity; simple ointment on lint was placed over the opening, and a compress of sheet-lead secured over it. On August 4th, no faeces had passed through the opening for five days.

This case passed from my care at this date: the person being a pauper residing in a Poor-law district of which I had charge for a short time, but which I resigned at this period. I, however, did not lose sight of her. The parts are now, and have been for some time, quite healed. The new anus is obliterated; and the poor woman informs me that she enjoys as good health as at any time during the last twenty years.

Now comes the interesting question, What was the first swelling, which I assumed to be a hernia? We shall probably be directed to the answer by the bone which escaped from the second swelling, or that which I describe as an acute abscess. Did she swallow the bone with the broth which she used as her daily food? She informed me she converted whatever meat she could get into broth, as the most economical form of cooking it. She had no recollection of having swallowed a bone; but the poor woman's habits were intemperate; and this frailty of hers, coupled with the appearance of the bone, and the absence of all evidence of caries of the spine, sacrum, or pelvic bones, strengthens the assumption that she swallowed the bone; that it became entangled in some part of the bowel; and that, from what I have already stated, that part was probably the sigmoid flexure of the colon; that, obedient to the law observed by foreign substances entangled in living tissues—namely, of directing their course, by intestinal absorption, to the surface in the direction where there is least resistance—it pinned the bowel, or one surface of the bowel, to the soft wall of the abdomen, leaving the channel of the bowel free and open, until its progressive and silent course was disturbed and its relation with the surrounding parts altered by the fall down stairs. An aperture was, perhaps, then formed, through which air from the bowel, and perhaps a jet of fluid faeces, were forced into the cellular tissue constituting the first swelling. If this were the course of events, the air was forced back, by my manipulation, into the bowel through the same opening by which it came out; and so kept up the delusion of the presence of a hernia. The truss subsequently applied made matters far worse; for by its pressure and friction it continued to disturb the bone with every movement of the body, and so had some share in producing the second swelling or abscess. The woman informed me she had no swelling in the groin before this time; consequently, there was no pre-existing hernia.

STRANGULATED FEMORAL HERNIA:

REDUCTION BY INVERSION.

By THOMAS T. GRIFFITH, Esq., Wrexham.

MRS. JONES, aged 72, a farmer's wife, of spare habits and short stature, had long enjoyed good health, but was the subject of crural hernia on the right side. She had never worn a truss; and the tumour was usually in an unreduced state. On Monday, June 1st, strangulation appears to have taken place, followed by vomiting and constipation. On the following day (Tuesday), she was seen by Dr. Dixon, who, having detected the hernia, attempted its reduction by the taxis without success. He prescribed means for allaying the irritable state of the stomach, and enemata to solicit the action of the bowels.

The next day (Wednesday), in the evening, I was asked to see the patient with Dr. Dixon. We found her depressed, with frequent vomitings, no action of the bowels, and thirst, with a dry tongue; pulse small, wiry, 90. The hernial tumour was hard, hot, incompressible, tender, and not distended by coughing. The right iliac region was sore on pressure, and tympanitic. Under these circumstances, I made a very cautious but ineffectual trial of the taxis; and we then decided that an operation offered the only means of safety to the patient. Previously, however, I was anxious to try the effect of inversion of the body. The patient was placed in the vertical position, with her head on the floor. A careful employment of the taxis produced no sensible effect. She readily consented to the operation; and when, after a short interval, I was about to perform it, she said that the swelling was softer. On examination, this appeared to be the case, and we decided upon another trial of inversion. In this posture, with flexion of the thigh, the taxis produced a partial return of the hernia; and in a short time the whole passed into the abdomen. Comparative ease and relief from vomiting soon followed. Calomel and opium were given; and subsequently one grain of calomel effected the free action of the bowels. The pulse sank to 72, and she had good sleep.

I did not again see the patient; but Dr. Dixon kindly furnished me with details of progress and treatment. She had a narrow escape from alarming prostration, and it was only through the instrumentality of unremitting care and judicious treatment that she gradually recovered. Some difficulty still attends her wearing a truss.

As a means of reducing hernia, the inverted position with the taxis has long been known, and is especially adverted to in Mr. Hey's valuable work *On Surgery* (pp. 123-131); but he does not speak encouragingly of it. Recently cases of it, with a successful result, have been reported by Messrs. Jessop, Power, and Bowman; and it will probably be now admitted as one of the remedial measures to be employed before resorting to an operation. It must in a degree act by gentle traction on the contents of the sac, and probably still more by opposing the influx and facilitating the efflux of blood—an observation made by Mr. Bowman in speaking of the case under his care. This would best explain the fact in the above case of softening of the swelling after the first inversion, and would suggest the repetition of the procedure, should a first or second trial of it fail.

M. PASTEUR ON PUTREFACTION. As a natural sequence to his investigations on fermentation, M. Pasteur is now engaged upon *Researches on Putrefaction*. His present paper relates exclusively to the cause of putrefaction, which he says is determined by organised ferments of the genus *Vibrio*. The author has investigated the nature of the putrefactive changes which take place in matters exposed to, and protected from, air. These it appears are effected by two classes of infusorial ferments, one of which cannot exist without oxygen (e.g., *bacteria*) and the other cannot exist with—*vibrios*. In some cases, when the action of the former causes a pellicle to form on the surface of a liquid, and so prevents the absorption of oxygen, two distinct chemical processes go on simultaneously. In the interior of the liquid *vibrios* transformed nitrogenised matter into more simple but still complex bodies, while on the exterior the *bacteria* burn these matters up, and reduce them to simple binary forms, as water, ammonia, and carbonic acid. Gangrene, M. Pasteur says, is not putrefaction properly so called, but a condition of a part in which the liquids and solids react chemically and physically on each other without the normal acts of nutrition. Death, he adds, does not put an end to the reaction of liquids and solids in the body,—a sort of chemical and physical life continues to act.

Transactions of Branches.

LANCASHIRE AND CHESHIRE BRANCH.

ON THE TREATMENT OF RHEUMATIC FEVER.

By J. BIRKBECK NEVINS, M.D. Lond.; Lecturer on Materia Medica, Royal Infirmary School of Medicine, Liverpool.

[Read June 24, 1863.]

THE plan of treatment about to be laid before you is one for which I am not able to claim the credit of originality, but it is a method which I have adopted for above fifteen years both in private practice and in an union hospital containing above one hundred and fifty beds; and I think that, if its advantages were more generally known, it would be more frequently practised. During this period I have made trial also of the various modes of treatment which have prominently occupied the attention of the profession; viz., the opiate, the alkaline, the lemon-juice, and the do-nothing treatment; but I always return to my accustomed plan, with confidence rather increased than diminished by the comparison with others. At the same time, I am bound to confess that this treatment will come before you with one very serious defect, which it is vain now to attempt supplying—viz., the absence of detailed clinical reports of the cases treated; and I am unable, therefore, to say how many have been cured, or how many days have been required before the patients could walk about, how many before they could leave the hospital, or how many before they could go about their work as usual. Such phrases as "I feel very confident", "I am thoroughly convinced", and the like, are the nearest approach to accuracy now attainable; and I am well aware how much this absence of exactness lessens the value of any conclusions respecting the result of treatment in such a disease as rheumatic fever. With these preliminary remarks, I will now proceed to the details of the method.

It is impossible to observe many cases of rheumatic fever without being struck by the periodicity of the disease, as shown by the general aggravation of the pain and other symptoms as night comes on, and also by the copious sweating, which enfeebles the patient, rather than relieves him. The long continuance of the illness, and its liability to return after apparent recovery, and the length of time requisite for regaining strength, are also well known features. In some of these particulars, but especially in its periodical exacerbations and in its sweatings, Heberden and others, and Dr. Davis of University College, in a very able paper on the subject, have at different times noted its similarity to ague, and advocated the employment of cinchona or quinine for its cure; and it is this drug upon which I look as the basis of the treatment to be proposed to you. At the same time, the experience of the profession generally has shown the great value of iodide of potassium in chronic rheumatism; and, remembering the tendency of this disease to become chronic, I always combine this medicine with the quinine, and commence their administration from the earliest date at which the patient comes under my care. The presence of acute pain and high febrile excitement does not, in my experience, form any objection to their employment; and the thick creamy fur upon the tongue disappears more rapidly under their use than under the different methods which I have compared with it, either in my own practice, or when noticing that of my brethren in the profession. The dose never exceeds two grains of quinine four times a day, with five grains of iodide of potassium added to each dose.

The pain and loss of rest are, however, so distressing to the patient, that we have been advised to administer opium in quantities only limited by the effect produced. And the employment of this drug as far as may be necessary for subduing the pain is a very important point; and I therefore always leave two or three doses of opium pill or of Dover's powder with the nurse, which are to be given successively, if the patient is in severe pain; but I very rarely indeed find that the patient has even asked for more than a single dose in the twenty-four hours, which I attribute to the speedy and more permanent relief obtained by the following element of the treatment, to which I attach very great importance. This is, the employment from the very first of steam-baths, even when the patient is so helpless that it is impossible to move him from the bed on which he is lying. These steam baths relieve the pain and check the distressing perspirations in a degree which I have failed to obtain by any other mode of treatment; and they are administered with the greatest ease in the following manner.

A couple of common red bricks are to be placed in an oven hot enough for baking bread, and in half an hour or little more they are sufficiently heated for the purpose. The patient's body-linen having been previously removed, these two bricks are to be folded up in a piece of common thick flannel thoroughly soaked in vinegar and laid upon two plates; and one is to be placed about a foot distant from one shoulder, and the other about equally distant from the opposite leg;* and the bedclothes are then to cover the bricks and the patient closely round his neck. A most refreshing acid steam bath is thus obtained; and the supply of steam may be kept up, if necessary, by removing one brick and replacing it with another hot one kept in reserve. When the patient has been in the bath for about fifteen or twenty minutes, the bedclothes and plates should be removed, and the patient instantly mopped all over very rapidly with a towel wrung out of cold water, and then should be quickly rubbed dry.† Dry warm linen must be put on at once, and dry bedclothes must replace those which were on the bed previously. The patient generally experiences great and speedy relief from this bath. The exhausting acid sweats are materially diminished; and the necessity for opium, as already mentioned, is almost at an end.

But here the objection naturally presents itself: a patient in rheumatic fever suffers so severely from the slightest attempt to move him, that we are frequently obliged to leave him several days without changing his linen, from the pain occasioned by the attempt to remove it even leisurely; and we have just been told to change it quickly, which implies that the case cannot be a very severe one, or this direction could not be carried out. The difficulty is really of the most trifling character, if the simple precaution is adopted of tearing the night-shirt open from top to bottom down the back. The sleeves are then slipped over the patient's arms almost without moving them; and the torn edges of the linen are gently tucked under his sides, from which they can be just as easily withdrawn the next day. And by this means he is freed from the discomfort of lying day after day in linen soaked with acid perspiration; and this is done without the smallest pain to himself or trouble to his nurse. For many years I used large lumps of quick lime, and wrapped them up in clothes soaked with cold water; and, as soon as the lime began to slack, the

patient was enveloped in a steam bath from simple water; but in many places it is difficult to obtain quick lime, and the vinegar is also more refreshing to the patient; so that the vinegar and hot bricks have now quite superseded the lime-bath.

These, then, are the essentials of the treatment: quinine and iodide of potassium from the first, and the steam bath, with the subsequent cold sponging; and, as an adjunct, opium in small doses, when necessary to procure sleep.

It now remains to speak about the success of the treatment. During the fifteen years it has been in use, I have only had occasion to apply a blister over the heart in three instances; and this was done because the patient complained of uneasiness in the chest, not because there was any distinct evidence of pericarditis. There has not been one case of distinct rheumatic affection of the heart; but the absence of clinical reports puts it out of my power to state how many cases have been thus treated. I can merely say that they have been numerous.

Next, as regards the duration of the disease; it is extremely rare that it is necessary to give two steam-baths in bed, the patient being almost always able to have the second whilst sitting upon a chair; from which you will draw your own conclusion as to the rapidity of improvement. I am surprised when the patient is not able to walk about the room, a little at any rate, in little more than a week; and I have a strong impression that he is more frequently able to do this within the week than not. But here, again, the absence of exact reports must be taken into account. I further think that from two to three weeks is the average duration of the case before the patient is able to walk up and down stairs and to go out of doors for exercise or pleasure. Relapses are not common; and the patient has not the lingering convalescence which I have observed under other methods of treatment.

The steam-baths and subsequent cold douche should be continued after the patient is able to walk about, as they contribute to the healthy action of the skin, and promote the free mobility of the joints.*

If there is great tenderness of any one particular joint, an opiate embrocation, containing in addition either chloroform or tincture of aconite, should be gently painted over the part two or three times a day; but, in the early stage, the employment of friction appears inadvisable whilst the pain is very acute.

The recommendations of the method now presented to you are: that the patient's strength is husbanded from the first, and he has neither the protracted disease nor the lingering convalescence often observed. Pain and sweating are more quickly relieved than by any other treatment I have seen. Relapses are very rare; and so far I have not seen any case of cardiac affection occurring as a consequence of the rheumatism. I have a strong conviction that, if the method is fairly used in two or three cases, it will leave the same favourable impression upon the minds of those who try it that it has produced upon my own, and upon the students who have watched its employment in the hospital to which I have alluded.

* These baths are very easily given by placing the patient naked upon a chair, and putting a can containing a couple of gallons of boiling water under it. Blankets are then to be folded round his neck, and made to surround him like a tent, reaching to the floor. In about five or ten minutes, a red hot brick should be put into the can, which renews the supply of steam. The patient soon perspires; and in fifteen or twenty minutes the blankets should be removed, and a couple of quarts of cold water should be poured over his shoulders; or, if he is afraid of such heroic treatment, he should be mopped from head to foot with towels wrung out of cold water. By this means he is invigorated instead of feeling weakened, and depressing perspirations do not follow the bath. The patient should sit upon a pillow or doubled blanket, on a close bottomed chair, not upon an open cane-bottomed one. I have known a patient scalded by the accidental neglect of this precaution.

* Care must be taken not to put the bricks too near the body. I have known the thigh blistered in a patient who was unable to move away from the heat which was accidentally very near it. A dry napkin thrown over the wetted one will prevent this accident, if the bed is too narrow to allow sufficient space.

† The under sheet can be removed, and a dry one substituted by fastening the corners of the dry sheet to those of the damp one. Very little difficulty is generally met with in simply drawing the old sheet from under the patient, when the dry one follows it, and is left in its place.

MIDLAND BRANCH.

NOTES ON HÆMATOMA OF THE EXTERNAL EAR IN THE INSANE.

By W. PHILLIMORE STIFF, M.B., Physician to the County Asylum, Nottingham.

[Read at Derby, July 2nd, 1863.]

The subject which I am about to introduce to your notice, that of sanguineous cyst of the ear in the insane, is of importance in a medico-legal point of view. Some writers allege that these hæmatic cysts are the result of injuries either self-inflicted or from the employment of violence on the part of attendants and nurses. The statement of Gudden, in support of the latter view, has been most extensively circulated (see *BRITISH MEDICAL JOURNAL*, May 1861, page 469; *Medical Critic*; and *New Sydenham Society's Year-Book*.) He maintains that these swellings are entirely owing to mal-treatment; and points out that ears closely resembling those of the insane are not unfrequently met with amongst sculptures depicting pugilistic athletes. Singularly enough, in his efforts to bring this home to the attendants, he avers that he has never met with an instance in which the injury could be traced to the patient himself or to other patients. How this can be reconciled with the fact, that patients frequently fall on the ear in fits, and are struck on it by their own associates, I am at a loss to imagine. Again, in the lately published work of Dr. Kramer, *On the Aural Surgery of the Present Day*, the observations of that author are calculated to encourage the theory of the physical origin of the disease. He says: "The causes of these bloody tumours on the cartilage of the ear are unknown, though we must admit that they are especially likely to be produced by violence (blows on the ear), which, perhaps, explains their more frequent occurrence on the left ear." (*New Sydenham Society's edition*, page 41.) In the *British and Foreign Medico-Chirurgical Review* for January 1858, I published a short memoir on this peculiar disease, illustrated by engravings after photographs of the altered ears; and I therein advocated the contrary opinion, based upon observation and inquiry, that the lesion is not occasioned by physical injury, but that it is the result of a spontaneous hæmorrhage arising out of a pre-existing diseased condition of the vessels of the pinna of the ear.

Two cases came under my notice last autumn, strongly confirmatory of this opinion. Both were to be seen running their course together, but distinct in their appearance and characteristics. The one was a well marked example of hæmatoma, arising without any external interference; the other, a case of severe contusion of the ear after a blow, not presenting any appreciable swelling, but only ordinary interstitial ecchymosis, although this patient was pre-disposed to hæmatoma, and was the subject of partial ossification of the cartilage of the opposite ear.

CASE I. September 30th, 1862. R. H., aged 71, had confirmed chronic mania. He had been insane fifteen years; he had the appearance of having been a free liver; was phlegmatic; inert; muttered to himself; had hallucinations about spirits, that they pulled his inside out. This morning I observed that the left ear was thicker than usual, owing to a circumscribed hæmatoma; not noticed the day before. There was no discoloration; no bruise. The ear had not received any blow, nor been interfered with. The swelling was of about the size of a broad bean; it felt tense and elastic, and was limited to the scaphoid fossa, antihelix, and concha, partially; was not painful. The fluid could be displaced slightly. There was no pitting on pressure; nor external inflammation. As usual, the posterior surface of the ear was not implicated, although the skin was more lax and not so firmly attached as on the anterior sur-

face. On Oct. 20th, the hæmatoma was less swollen; it was flabby; and its fluid contents were diminishing. On Dec. 20th, the swelling had been apparently stationary during the last month. On Jan. 15th, 1863, it was undergoing the shrivelling process. On March 16th, it had become firmly indurated; ossification had taken place; the skin was adherent to the cartilage; elasticity was lost. No treatment was required.

CASE II. November 26th. T. B., aged 58, had confirmed hereditary chronic mania; he said that he wrestled with the devil; was mischievous and disorderly; and attacked his neighbours viciously. He received during the night a violent blow with the fist over the left ear, which produced a well marked bruise of irregular shape. The concha and greater portion of the anterior surface of the pinna were discoloured. There was no appearance of hæmatoma; no blood was effused between the cartilage and skin, but the latter showed interstitial ecchymosis. The posterior surface was similarly affected, as also the integument over the mastoid process against which the ear had been driven; skin nowhere broken. This patient was predisposed to hæmatoma, and had the characteristic appearance of old ossific deposit in the unbruised right ear. The bruise lasted about six weeks, when the ear regained its natural colour, and left no further evidence of having suffered injury.

It is admitted on all hands that these effusions occur most frequently amongst the insane, or in patients affected with serious lesions of the nervous centres. It has been shown by several pathologists that there is a preexisting state of disease before the occurrence of the sanguineous effusion. The disease may be observed in both ears in different stages; and occasionally the cartilage may become ossified without the occurrence of the stage of effusion. When blows are received by the same class of patients over the analogous structures of the eyelids and nose, the same morbid changes do not take place. Epileptics are less liable to it than chronic maniacs. Cartilaginous nodules are sometimes developed after wounds of the ear; but their history, course, and pathology, are quite distinct.

In two specimens of hæmatoma occurring in the ears of the same patient, Mr. Toyne informed me that he had found the cartilage of the right ear greatly hypertrophied, and in some parts ossified. It had Haversian canals and corpuscles like normal bone. Bony matter was deposited in the left ear, which did not pass through all the various stages.

I entertain no doubt that the disease depends upon internal or centric causes; and is, probably, one of the results of the atheromatous diathesis. It runs a well-defined course; the duration varying from a few days to several years; and, unlike contusions, leaves structural alterations and disfigurement of the organ.

These two cases corroborate, in a remarkable manner, the views of those who consider that the phenomenon is the result of disease and not of accident, and they may be regarded in the light of a crucial experiment, decisive of the question at issue; confirming the fact, in the one instance, that hæmatoma may be developed without the intervention of external violence, and disproving, in the other, that it could be produced by a blow in a person predisposed to the affection.

TEST FOR GREASE. If whilst camphor is actively moving on water, the most minute particle of certain greasy substances only touch the water, instantaneously, as if by some magic shot, the camphor is deprived of all motion, and repelled. The scene of previous activity is changed to the immobility of death. By availing ourselves of this curious property of camphor, we may detect grease in quantities so extremely minute, as would almost appear fabulous. (*Chemical News*.)

Progress of Medical Science.

PSEUDO-GANGRENOUS BRONCHITIS. A man, aged 40, a paper-maker, of good constitution and habitually enjoying excellent health, was seized early in April with cough and abundant expectoration of matter having a fetid odour. These symptoms appeared when he was apparently in the best health, and were unattended by any constitutional disturbance. The patient ate and worked as usual; he was troubled only by the frequency of the cough, by the abundance of the expectoration, and by the daily increasing fetidity of his breath. His fellow-workmen complained of the odour, and this symptom became so unbearable that he was obliged to enter the hospital de la Pitié, under the care of M. Empis.

On admission, his breath, especially when he coughed, was extremely offensive. His sputa consisted of glairy transparent colourless matter, very frothy on the surface, holding in suspension a number of small unequal masses of opaque mucus, which floated free in the colourless portion of the sputa: the whole sputa had a peculiar very disagreeable odour, resembling that of gangrene of the lung. On pouring the sputa into a basin of clear water and stirring the mixture, the opaque masses did not communicate to the water the least muddy tint, as purulent sputa do.

The conformation of the patient's chest presented nothing remarkable; percussion elicited a normal clear sound in all points of the lung; on auscultation, there were heard behind, over a space 6 or 7 centimètres in diameter below the angle of the right scapula, some moist mucous râles, with unequal bubbles, which were partly displaced by coughing. There did not appear to be any pathological modification of the voice.

The patient felt no oppression, and could make large and deep inspirations without the least pain. His sleep was often interrupted by the cough and by desire to expectorate. He was not able to lie on the left side, from a feeling of suffocation when he did so. He had a good appetite; ate and digested well; and had never had fever.

In a clinical lecture on the case, M. Empis remarked that the fetidity of the breath and sputa gave at first the idea of pulmonary gangrene. But the sudden manner in which the expectoration was produced, without having been preceded by any symptoms of disease, and the general state of the patient, so little in harmony with the severity of the general symptoms ordinarily met with in patients affected with gangrene of the lung, forbade the idea of this condition to be entertained. Gangrenous fetidity of the breath and expectoration does not belong exclusively to pulmonary gangrene, and may be met with in certain diseases of the bronchi independent of true gangrene. Laennec more than suspected this, when, failing to find the pathological characters of pulmonary gangrene in patients who had had fetid bronchorrhœa, he suggested that the fetidity of the expectoration depended on a general disposition to gangrene, which excited the mucous secretion of the bronchi. Since that time, M. Briquet has pointed out that, in addition to pulmonary gangrene properly so called, there is an affection of the bronchi which resembles true pulmonary gangrene in the special fetidity of the breath and sputa, but which differs from it in its symptoms, in its pathological anatomy, progress, and frequently favourable termination. M. Lasèque has called this condition *curable gangrene*.

The quantity of the expectorated matter varies much. In the present case, it was about a quart daily; but fre-

quently it amounts to several quarts in twenty-four hours. In cases of long standing it contains, in addition to the elements already described, a greyish finely granular matter, not at all viscous, which is deposited at the bottom of the vessel. It is partially miscible with water, to which, when beaten up in it, it communicates a more or less muddy tint. The fetidity of the breath varies in degree; on some days it is slight, while on others it is very intense; it may disappear, in favourable cases, with the catarrhal secretion with which it is connected. The expectoration is not unfrequently preceded by the formation of vomica, which burst in coughing, and discharge their contents.

In most cases, there are no remarkable physical signs; there may be no general symptoms, or there may be slight febrile reaction; but in no case is the disease attended with the severe symptoms which ordinarily accompany gangrene. When death occurs, it takes place as the result of exhaustion produced by the excessive secretion, unless the patient be carried off rapidly by some acute complication, such as pneumonia or erysipelas.

The pathology of the disease does not appear to be positively determined.

M. Briquet believed that the extremities of the bronchial tubes become dilated, and affected with gangrene independently of the other parts of the lung. M. Empis criticises the latter notion at some length, and says that it seems to him more rational to admit that the disease consists in a special pathological alteration of the mucous membrane of the bronchi, in virtue of which they become dilated, while at the same time their internal surface secretes a prodigious quantity of fetid matter. The disease then may be theoretically resolved into dilatation of the bronchi; bronchorrhœa; and gangrenous fœtor. But these are neither successive nor subordinate one to another; they advance equally, and it is their union and indivisibility which constitute the special character of the disease. (*Gazette des Hôpitaux*, 2 Juin 1863.)

VICARIOUS MENSTRUATION AND ITS INFLUENCE ON OVULATION. M. Puech, in a work on this subject, gives the following conclusions. 1. Vicarious menstruation (supplementary hæmorrhage) is said to occur when at the monthly periods a discharge of blood takes place from other parts of the body than the genital passages. 2. Any part of the body may be the seat of these hæmorrhages; nevertheless, certain situations are preferred, amongst which M. Puech has noted the stomach in 32 cases, the breasts in 25 cases, the lungs in 24, and the nasal mucous membrane in 18. In all the carefully observed cases, there have been hysterical symptoms or exaggerated nervous sensibility. 3. The catamenia are generally absent (183 cases); but in 15 there has been noticed to be a slight escape of blood at the same time. 4. The genital organs are generally healthy; but sometimes they are altered. In eleven cases, there was either accidental or congenital atresia. 5. Except in these latter cases, the absence of the catamenia does not imply sterility; unless there be some grave disorder of the economy, ovulation continues, and rupture of a Graafian follicle attends the appearance of the supplementary menstruation. 6. Pregnancy is therefore possible, and has been observed to take place; it causes the suspension of the vicarious menstruation, which reappears after delivery or at the termination of lactation. 7. Although compatible with health, and capable of continuing from puberty to the critical age, vicarious menstruation is a pathological act: it has even in several cases produced death. (*Gazette Méd. de Paris*, 25 Avril 1863.)

THE UNSTRIPED MUSCLES OF THE SKIN. M. Sappey, in a paper read before the Biological Society of Paris, observes that smooth muscular fibres are completely

absent in the palms of the hands, the soles of the feet, the skin under the nails, and the skin of the external auditory meatus, eyelids, nose, and lips. On all other parts of the skin their existence is readily recognisable; and they are disposed in different manners, according as they are seated in the deep or in the superficial layers of the skin. Those which occupy the deep layers of the derma are distinguished by their number and size; they form the principal element in these layers, and pass in all directions. Most of them lie parallel to the derma. Immediately above the muscular fibres are the sweat-glands, and at a higher level the sebaceous glands, with which these fibres have no connection. This arrangement is seen in the areola of the breast, and in the scrotum and skin of the penis. Above the integument of the testes and penis there is found, in fact, a muscular layer which for the former forms the dartos, and for the latter an analogous membrane hitherto undescribed. The dartos, considered hitherto as a distinct covering of the scrotum, is in reality only its deep layer; and in the same way the dartos underlying the integument of the penis is evidently only a dependence of this integument.

The muscular fibres found in all other parts of the skin occupy the most superficial layers of the derma. They are every where attached to the hair-bulbs at their deeper extremity, and, dividing into several parts, are lost in the subepidermic layer. In general, there is but one fibre to each hair-bulb; and the fibres are generally much more developed at birth and in children than in adults and old persons. By their fixed or deep end, these fibres are inserted into the hair-bulb immediately below the corresponding sebaceous gland, round which they turn to mount more or less perpendicularly towards the free surface of the skin; hence they embrace the sebaceous gland in the concavity of their curve. They cannot contract without pressing on the sebaceous glands; and their special use is evidently to regulate the excretion of the sebaceous matter. This explains why they are so remarkably developed in early life; for it is in the last two months of intrauterine life that the sebaceous secretion attains its greatest activity, being then especially required to protect the skin of the fœtus from the action of the amniotic fluid. The anatomical and physiological relations between the sebaceous glands and the muscles which compress them are so intimate, that the smooth muscles must be looked on as forming incomplete contractile envelopes, analogous to those which surround most of the abdominal viscera and the ducts of glands; and it is an error to attribute to them the function of elevating the hair-bulbs and hairs.

That their function is to elevate the hairs, is a conclusion which is easily arrived at if the muscles of the hairy scalp be alone examined; for it there appears as if the contraction of the muscular fibres must raise the hair-bulbs in a direction perpendicular to the skin. But, if the smooth muscles in the scalp lie in the direction in which the hairs are inclined, it is because the sebaceous glands lie on this side when they are single; and, when there are two, the largest occupies this situation. In other parts of the body, where the hair-bulbs are seated perpendicularly to the integument, it is easy to ascertain that the muscle is always situated on the same side as the sebaceous gland; that it surrounds this body; and that, if it be attached to the hair-bulb, it is only to have a fixed point below the gland so as to be able to compress it more efficiently. Those parts where these compressing agents are much developed, as the skin of the limbs and breast, rarely become the seat of accumulations of sebaceous matter; while such accumulations are frequently met with in the ear, eyelids, and *alae nasi*, as well as in the hairy scalp, where the muscles become atrophied with age, while the sebaceous glands exist in large numbers. (*Gazette Médicale de Paris*, 13 Juin, 1863.)

ON account of the remarkable ignorance generally prevalent in the profession, respecting the laws which regulate the conduct of the Royal College of Surgeons of England, it is our intention, at an early date, and when the pressure on our columns will permit, to publish copies of the Charters of the College of Surgeons. Very few copies of these Charters are in the hands of the profession; consequently, it is very desirable that they should be rendered more generally available.

British Medical Journal.

SATURDAY, AUGUST 1st, 1863.

THE MORTALITY IN OUR INDIAN ARMY.

THE Royal Commission appointed in 1859 by Lord Herbert, to inquire into the mortality and diseases of the Army in India, has just presented its Report.* Two huge volumes, each containing 1,000 pages of closely printed matter, attest at once the importance of the subject and the industry of the Commission. A smaller octavo volume, which contains merely the Report and a *précis* of the evidence, has been issued for members of Parliament; and it is this smaller work which the public generally will chiefly use. But for the profession the two large volumes will have most attraction; for it may truly be said that, independent of their special interest, they constitute a most comprehensive treatise on hygiene.

The Report itself occupies ninety-three pages. It commences with some general statistics of mortality and expectation of life in India, passes on to a review of the chief sanitary conditions under which Europeans serve, and closes with a series of suggestions. We extract, almost at random, a few facts from the Commissioners' summary.

Taking the present century, the mortality among the Company's European troops has been 69 per 1000 per annum. The mortality is least under 20 years of age, and increases on the whole with age; being 56.4 per 1000 from 20 to 25 years of age, and 61.6 per 1000 from 40 to 45 years. At the age of 20, the expectation of life is only 17.7 years in India, as against 39.5 years at home; showing a loss to the soldier serving in India of 21.8 years. A man returning from India at 40 years of age loses, on an average, four years of life. The mean period of service in India is only 8.6 years. For every 100 men, 11 recruits are required annually. One thousand men are reduced to 96 in twenty years of service, in the following way. About 404 die; 146 are invalided; 35 buy their discharge; 90 retire from expiration of

* Report of the Commission on the Sanitary State of the Army in India, with Appendix. (Parl. Papers. vols. i and ii.)

service; 10 are promoted; 197 are transferred; 18 desert; 3 disappear from other causes; and 96 remain. Half the army in India consists of men who have served less than six years; not more than one-fourth are veterans of ten years service. Out of an army of 70,000 British in India, 5,880 men (or 8.4 per cent.) are constantly sick.

With these and other facts of the like kind at the outset of their Report, the Commissioners proceed to consider the causes of this great sickness and mortality. These are, of course, numerous—some inevitable, many removable. But the statements made by the Commissioners, by many of the witnesses, and especially by Miss Nightingale in her vivid summary of the evidence, prove an almost incredible amount of carelessness and neglect of the most ordinary sanitary rules. It is indeed wonderful that we only lose 69 per 1000 by death annually; and it may safely be anticipated that, if the Government will at once initiate the improvements suggested by the Commission, we shall see a still more extraordinary improvement take place in the health of the Indian than has occurred even in the army at home. The Commissioners might have brought forward the parallel case of the West Indies, where the mortality has been lessened to such an extent that even Jamaica gives only a death-rate of 20 per 1000.

The Commissioners first discuss the influence of climate, that bugbear which has frightened so many aspiring souls, and that convenient explanation which has glossed over so many errors. They state that they have been struck with the absence of direct allegations against climate in the stational reports. "The reporters do not attribute the soldiers' mortality to the climate of the stations." No doubt there are unhealthy stations; and the Commissioners do not underrate the influence of heat, moisture, and the evolution of malaria which, over a wide surface, influence the sanitary condition of a people. But they affirm, and no one will doubt the assertion, that European troops are exposed to many other conditions besides those of climate which injure health. To the study of these conditions the Commissioners devote the greater part of the Report; and we soon find ourselves passing over the familiar ground of bad locality, impure water, defective drainage, overcrowding in barracks, badly arranged barracks and accessories, and, in fact, of all those topics which compose the gist of the "Health of Towns" and all subsequent Reports.

The case which the Commissioners make out against the Government of India for criminal and fatal neglect of fundamental sanitary laws, both as applied to Europeans and natives, is overwhelming. It is impossible that these serious charges can be allowed to be quietly shelved. We do not hesitate to say that the public attention of this country must become forcibly directed to this topic; and we are

happy to see that Sir Charles Wood has publicly stated that the subject shall receive his attention. If Sir Charles Wood takes the matter up, we know it will be done; but he must take care that his subordinates do not oppose his orders. Already we hear rumours among Indian officials that the Report exaggerates matters; that the errors, if they exist, will soon be put right; that sufficient machinery already exists for remedying the trifling evils, etc. It will be a lasting reproach to this country, and the greatest condemnation of its rule in India, if such wretched trifling with a matter so momentous be allowed to arrest the first serious attempt to improve the health and well-being of a hundred millions of persons.

We will not enter into any account of the sanitary evils enumerated by the Commission. Our readers have but to call to recollection the condition of the worst English or French town they know, and increase fiftyfold all the abominations of a filthy and careless race, and they will have some idea of the great Indian cities which we honour by the proud name of cities of palaces. And, on the other hand, take an English barrack, and in a slightly different shape erect it in Hindostan; or, at any rate, preserve its intrinsic features, though its form may be altered; and the Indian barrack and its customs can be but too often truly pictured. Then imagine all that worshiped routine which, after years of protestation on the part of medical officers, still thinks spirits essential for troops; still supposes that the same kind of food is suitable for all latitudes; still believes, or did so till very lately, that throughout the length and breadth of a vast country like India, the same clothing will be precisely fitted for all temperatures; and still contents itself, when tremendous attacks of cholera or fever sweep away both Europeans and natives, with vague reasonings about climate or occult influences, instead of looking to bad customs and unhealthy habits as the true causes of that great mortality;—and then, if the imaginations of our readers are strong, they may perhaps form a correct idea of the extraordinary evidence brought forward in this Report.

But now what are the remedies? The Commissioners make thirty-nine suggestions, thirty of which, at least, merely recommend the most ordinary rules of hygiene, such as improvements in ventilation, water-supply, drainage, barrack accommodation, internal economy of regiments, etc. The other suggestions are—

That the period of service be only ten years in India.

That the strategical points of the country which must be occupied be now fixed with special reference to reducing, as far as possible, the number of unhealthy stations.

That hill stations be provided; and that a third part of the force be there located in rotation.

That the sanitary regulations now in force in England be applied to India.

That properly trained army medical officers of health be appointed to this service at the larger stations.

That Commissions be appointed for each presidency, to give advice and assistance in all matters relating to the public health.

That a permanent Commission, consisting of the War Office Commission and of two officers of the Indian Government, be formed in this country to assist the Indian Commissions.

That a code of sanitary regulations be issued under authority.

That the present system of army statistics be extended to all Indian stations.

That a registration of deaths be established in the large cities of India, and be then gradually extended.

Such, then, are the recommendations; and now it is for the Government to act. The cardinal measure which will bring about all the rest is to appoint at once the Commissions in India and at home. Let this great work be commenced without delay by the electing of sensible earnest men, who will deal with this subject as it must be dealt with, carefully, calmly, and patiently, and yet vigorously and firmly. Let those Commissions be formed of the best medical and engineering officers who can be found in India; and let the Government determine to give them the fullest support. Then, as we have seen how two or three determined officers have staved off the great financial crisis which loomed over India, and out of chaos have educed order, and out of the nettle, danger, have plucked the flower, safety; so we shall see how this dark cloud of disease and mortality and untimely death will clear away, and will disclose to us the spectacle of a healthy and contented people, and of a vigorous and effective soldiery.

THE WEEK.

A COUNTRY Fellow of the College of Surgeons complains, and with a manifest show of justice and truth, that the Fellows of the College who reside in the country have not a fair share with their London Fellow-brethren in the election of Councilors. The fact is patent. Under the present mode of election, the London Fellows must naturally always carry the election. It is utterly impracticable for the country Fellows, as a body, to leave their practise, incur heavy travelling expenses, and journey to London, for the purpose of exercising this privilege of theirs. *Le jeu ne vaut pas la chandelle*. But is it right and good for the profession, that the election of Council should be made almost wholly by the London Fellows? Our readers must remember

that the body of Fellows was originally established for the very purpose of forming a constituency to elect the Council—who had previously elected themselves. Therefore, to deprive a Fellow of his vote, is to deprive him of the power of exercising one of his chief duties as a Fellow. And surely, unless some relief be given to the country Fellow in this matter, he is, to all intents and purposes, deprived of the exercise of this privilege and duty. A correspondent suggests that country Fellows should be allowed to vote, after the same fashion as members of Oxford and Cambridge Universities now vote under Mr. Gladstone's law. It is difficult to understand what objection could be raised to this proposal. The Council can settle the mode of election by a bye-law; and have, therefore, the power in their hands, if they only have the will to use it. An election of this kind, with a proper mode of taking the votes, in which the whole body of Fellows have a share, would assuredly be the best means of putting an end to all improper canvassing. Besides this, candidates are much more likely to be equitably treated and fairly judged of by Fellows at a distance, than they are by their own personal friends and acquaintances. Fellows in the country would (as a body) naturally judge of a candidate solely by the light of his professional fame. The candidate's reputation would, in fact, be the chief guide to them in voting. But the London Fellows, who now carry the elections, are, of course, in part guided by the strong ties of personal friendship, and, as we may be sure, these personal ties naturally exercise a very considerable influence over his vote. At all events, it is very certain, that the country Fellows have a strong case—so strong, indeed, does it seem to us, that we cannot doubt their voices will be heard in the College, if they desire it. It is assuredly unreasonable that the London Fellows should monopolise this privilege, if the privilege can, and with advantage, be extended to the whole body of Fellows. Thus, on the one hand, the Fellows in the country are just as capable of making a good selection as are the Fellows in London; and, on the other, their choice is (as we have shown) much more likely to be candid and impartial than that of the London Fellows. Moreover, on the ground of fair play, the country Fellows have a right to more full representation at the Council Board than they at present possess.

WE have heard that the governors of St. Thomas's Hospital have determined that the Stangate site is the best and most fitted for their future hospital to stand upon. They hope to purchase this site for £90,000. If this purchase is effected, we may expect that a model hospital erected on the grandest scale, and in full operation, will rise up there in the course of about three years from the present date.

THE late horrible attempt at murder by a lunatic in a railway-carriage deserves other consideration than that which has been given to it by the public press. This press is satisfied with calling upon railway directors to put in their carriages means of communication with drivers and guards. But there is a far more efficacious means of arresting the hands of these murderous lunatics; and we need hardly tell the profession that it is the wisely taking such proper care of the lunatic as shall prevent him either injuring himself or others. In cases of this description, the public must suffer if it refuses to listen to the voice of reason and of science. The murderer in the case alluded to had previously shown signs of lunacy, such as would, in the eyes of a medical man, have justified his not being permitted to travel by himself. But such is the jealousy of the public regarding the personal liberty of lunatics, and such their wonderful suspicion of the ignorance and one-sided views of mad-doctors, and of all doctors, that until the murder is actually committed, the murderer is regarded as sane. Those signs which to the eye of science are clear indications of madness, and of a possibly dangerous, suicidal, or homicidal mania, are ignored by judges and juries, and the public press, and by the public at large. Consequently, the daily journals are constantly giving us examples of murders committed by lunatics. Be wise enough and humane enough to arrest the lunatic before he commits such fatal acts, is what medical science teaches. In justice to the wretched individual himself, and to society at large, take the man with his premonitory symptoms of insanity and subject him to treatment, while yet there is a hope of his final recovery. Do not wait until he destroys life before you take charge of him, and then shut him up for life as a criminal lunatic.

WE understand that Mr. Cæsar Hawkins continues to hold his office of Examiner of the Royal College of Surgeons, although he is no longer a member of the Council. We rejoice to hear that such is the case; for as Mr. Cæsar Hawkins holds the office of Examiner at the pleasure of the Council, it is now evident that the Council have, at last, determined to acknowledge practically the terms of the Charter, which permits, or rather, we should say, indirectly enjoins, the electing by the Council to the Court of Examiners of Fellows who are not members of the Council. Mr. Cæsar Hawkins is the first Fellow of the College not on the Council who has ever held office as an Examiner. The fact is one of great significance. It is the admission—forced though it be—of the great principle involved in the Charter of the College, that Examiners should be elected from outside, and not solely from the members of the Council. We will venture to prophesy that never again will the Council venture to

secede from the principle which they have been now forced to bow to, in order to keep Mr. Cæsar Hawkins on the Court of Examiners.

IN the seventeenth century, the medical corporation of Paris was powerful and very wisely organised (*Les Médecins du Temps de Molière*). Not every one who wished could enter into it. The faculty, jealous of its celebrity, refused admission to all who did not please them. The number of doctors was very small, and increased very slowly. In Paris, in 1395, there were 31 doctors; in 1500, 72; in 1566, 81; in 1625, 85; in 1634, 101; and in 1675, 105. At the present time, there are about 2000. The expenses of the examination then amounted to about 6000 *livres*; at this day, the expenses scarcely reach 1200 *francs*. This was one means for keeping down the number, especially as at the same time the expenses of admission to other faculties varied between only 500 and 800 *livres*. The profession of medicine did not, as now, offer few resources to the physician. We cannot return to those days; but certainly we may be allowed to express a regret that the number of physicians of this day is not more restricted. We have lost two great things. We have lost the *prestige* which is attached to a title then so rare, and the independence which a position of fortune gives in the world. In those days, the doctor was respected by his patients in proportion as he was less dependent upon them; and he was sure to reach a position of ease. Now-a-days, we very much doubt whether patients have any respect even for the heads of the profession. At all events, it is certain that the great body of medical men, who are poor and have to struggle for daily bread, are little thought of—far less thought of than they deserve.

AT the anniversary of the Hospital for the Cure of Stone, held last week, it was stated, after the dinner, that "the late Sir Benjamin Brodie was so convinced that stone could not be properly treated in a general hospital, that he took a house in Lisson Grove, in order that persons afflicted with the disease might be properly attended to." As this appeared in one of our daily journals, we feel bound to state that it is perfectly incorrect. Sir Benjamin Brodie's name stood first on a list of medical names at the foot of that memorable protest issued some years ago against special hospitals, and especially against this Hospital for Stone.

THE well-known Grosvenor Place School of Medicine has ended its career with the late summer session; the lease of the present premises then expiring.

THE French medical journals announce that "colonial medical officers" are wanted for the province of Constantine, in Algeria.

An absolute majority of votes are required for the election of candidates for the Academy of Medicine of Paris.

Some of the journals have despatched M. Velpeau to Constantinople, in order to reorganise the School of Medicine for the Sultan. M. Velpeau, however, has no mission of the sort on hand; nor, we should think, desires such a one.

A French journal asks, "What is a scientific society without its journal? It is a body without a soul, a sound without an echo."

The worst ventilated Society-room—and, therefore, least in conformity with sanitary principles—in London, is probably the meeting-room of the Royal Medical and Chirurgical Society. We find, however, that its badness is equalled or eclipsed by the hall of the French Academy of Sciences. Like many other preachers, these learned and scientific corporations are the last to put in practice the good things which they are continually suggesting for the benefit of humanity at large.

Dr. Porak, mayor of Trautenau, and deputy to the legislative body of Vienna, is reported as the practitioner of an act of *fraternity* on a brother practitioner. Through his influence at head-quarters, he obtained an order for the expulsion of a colleague, Dr. Pauer, who had settled in his locality. The affair has made a great stir, we read.

One would have thought that the smelling of a rose was an innocent business enough; but Dr. Canuti says it is not. He informs us that persons exposed to the odour of gardens in which roses alone are cultivated, are, when the roses are in full bloom, subject to severe coryza. And of all roses, the Damascus is the most pernicious in this respect. Sometimes, this coryza is accompanied with a pustular eruption.

M. Mattei, in a paper just read to the Academy of Medicine, says that, according to his experience, the mean duration of pregnancy in women is 265 days.

The learned botanist, M. Decaisne, in a paper read before the Academy of Sciences, discussed the question of the ancient opinion of the variability of vegetable species, and the modern opinion of their invariability. After enumerating the arguments on both sides of the question, he pronounces in favour of the variability-theory; founding his views on recent experiments and what he considers a more exact interpretation of facts.

A celebrated Parisian hospital surgeon, says *L'Union Médicale*, once observed that he had three times practised amputations of the arm, in cases where the operation was necessitated through the ignorant "manœuvres" employed by a well-known religious community. A few years ago, we saw, under M. Velpeau's care, a young man in whom a

famous female bone-setter had broken the thigh. On one occasion, a poor fellow was brought into M. Gerdy's ward at St. Louis, whose eye had been destroyed in a quarrel, and who for a week had worn over the injured eye a pitch plaister, stuck on by a cobbler who pretended to be a great curer of diseases. The result of the treatment was inflammation, which extended to the brain, and death.

M. Lecoq says of the functions of the vessels of plants:—"Not only do the vessels contain air of a variable composition, but there goes on in them an actual circulation of a more active nature than that in the tracheæ of insects. The air in plants moves before the juices, and certainly with greater rapidity."

The *Gazette des Hôpitaux* relates a case of chorea cured, and permanently, by an attack of fever caught in the hospital.

Medical journals are looking up in the French departments. Three have appeared during the past year—*L'Union Médicale de la Seine-Inférieure*, *Le Médecin de Campagne*, and *Le Bulletin Médical de Dauphiné*.

The busy bee, *L'Abeille Médicale*, tells us that the office of its editor is situated close to the Ecole Pratique at Paris. "The place is very quiet, and in winter a death-like silence reigns there. But in summer, when the course of physiology is going on at the *école*, the scene changes. The different rooms, which no longer contain *subjects*, are now filled with living dogs, which are shut up, probably without bread or water, ready for serving their turn at the lecture-room. At all events, whether through starvation or through instinctive dread of the place, the poor brutes bark and howl night and day, so as to disturb all the neighbourhood. We thereupon took the liberty of complaining to the police, and especially because all this howling was close to the ears of the women in the Maternity Hospital. The police were reasonable, and visited the school; and soon returned to inform us that there would be no more barking. 'You will hear no more of it,' the commissary said. 'What! are the dogs no longer to be kept in the dissecting-rooms?' 'Oh yes! but it appears that they have cut something about the dogs' necks, which stops their crying.' We understand the poor brutes have been subjected to two painful operations (section of the laryngeal nerves) before other tortures are inflicted on them. And this is all they have taken through our interference! If we had known it, we would have quitted the place, instead of becoming the cause of this refinement of cruelty!"

A bone-setter in France lately gave the following certificate to a member of a sick society: "I certify that M. is suffering from a luxation of the great asiatic nerve."

THE NEW ARMY MEDICAL WARRANT.

[Communicated.]

THE increasing unpopularity of the army medical service, the almost entire failure in the supply of candidates for admission into its ranks, and the resignation of some of its most gifted officers, worn out and disgusted with the treatment they have received, have at length had some effect. A new warrant has been issued, with reference to the rank of medical officers; their grievances have, it is supposed, ceased to exist; they are congratulated by the organs of the military authorities on the concessions which have been made. What more can they want now?

It too often happens, when great injustice has been continuously inflicted, and grievous wrongs long left unredressed, that any turning of the tide in favour of the injured—any attention paid to their complaints—is regarded above its value; a great concession is supposed to have been made, and every one rejoices at the magnanimity of the bestower of the boon. There is reason to fear that such a feeling may arise with regard to this modification of the warrant, and that students of medicine, deceived by its specious promises, may be led again to seek for admission into the service. A little examination, however, will show that the warrant is hollow and valueless; that it conveys no real advantage, and leaves the position of the medical officer, as to rank, as unsatisfactory as ever.

One of the great grievances of which the medical officers of the army have hitherto had to complain has been, that the rank granted them has been only nominal and unreal. They have been made to rank as junior to combatant officers of the same grade, and not in accordance with the dates of their commissions. This the new warrant professes to redress, declaring that medical officers will for the future rank with combatants according to the dates of their commissions; but then follow reservations which almost entirely nullify the declaration, that "relative rank shall carry with it all precedence and advantages attaching to the military rank with which it corresponds."

The medical officer is denied by the warrant all right to the presidency of courts-martial, courts of inquiry, committees, or boards of survey; and when these are presided over by a junior officer, the surgeon, should his opinion be required, is to be called as a witness, instead of taking his proper place as a member. In this way, a return is secured, in another form, to the old practice by which the medical officer of many years standing was made to appear on committees as junior in rank to the newly-joined ensign. The denial of the right to act as president of a court-martial or committee at once implies that the medical service is inferior, in the eyes of the authorities, to the combatant branch; it is a distinct refusal to recognise the rank which the warrant professes to confer. With reference to choice of quarters also, the medical officer's right is made subject to a most important limitation. That, in this case, a commanding officer should take precedence of him is, doubtless, unavoidable, and no objection can be raised against such a rule; but when it is laid down that there are other cases in which special quarters may be permanently appropriated without reference to date of commission, there is reason to believe that the surgeon will constantly find himself superseded by junior officers, in whose favour special appropriation of quarters has been made, and that he will have to content himself with the accommodation provided for the subalterns of his regiment. In this case, again, it is evident that the rank professedly granted is virtually nullified and denied.

A further difference is again made between the rank of medical and combatant officers by the denial to the former of certain salutes. The medical officers of the

army do not covet these honours; but they cannot help feeling that the refusal of them indicates inferiority of position. Common sense dictates that where different honours are paid the rank cannot be the same. It is obvious that on this point, again, the concession at the outset of the warrant is revoked and denied at its close.

The language in which the high privileges of the warrant are conveyed is well worthy of remark, displaying, as it does, an evident desire to depreciate the status of the medical officers of the army. They have ever, heretofore, been considered as military, though non-combatant, officers. They are now described as a "civil department." This is an insult. The surgeons of her Majesty's armies are not civilians; but military, though non-combatant, officers. They wear the military uniform, are subject to military law, march with their regiments to the field of battle, and share the dangers of every military operation. Though essentially non-combatant, having their own special and all important duties to perform, it has sometimes happened that medical officers have been compelled to become actual combatants, and have done good service in the field.

In the performance of their duties, they are, as often as other officers, exposed to the fire of the enemy, and may be called upon, at any moment, to perform under it the most delicate and difficult operations, demanding the highest degree of nerve and self-possession even in the quiet and seclusion of the hospital ward or operating theatre. But even these labours have been looked upon with that jealousy and dislike which characterises the demeanour of the military authorities towards the medical service. The autobiography of the late Sir James McGrigor contains proof of this. Writing on the subject, he says:—

"In the proper execution of their duties, medical officers are frequently under fire; and during the late war, the cases of wounded medical officers were numerous. Some had been killed; and not a few lost limbs in sieges or in battles. Yet it has been ignorantly advanced by some military men that the medical officers have no business in exposed situations; and in this professed opinion they would deny the medical officer a pension for the loss of a limb. Yet it is well known that the cases are numerous wherein the lives of officers and soldiers have been saved by the zealous medical officers of their regiments being at hand to repress hæmorrhage."

Many other passages might be adduced from the work above quoted to prove that army surgeons have ever been ill-treated and undervalued by the military authorities, and that inefficiency and disaster have been but too frequently the result. The condition of the service has, indeed, of late years been slowly and grudgingly improved; but the spirit of dislike to it still remains, and as long as it exists will continue to lower the tone and diminish the efficiency of the service, to the detriment of the soldier and the loss of the state. The higher class of students will wisely continue to decline to enter a service which refuses to them the position and consideration of gentlemen and men of science; and in spite of the so-called competitive examinations, inferior men must be admitted, and placed in charge of that most costly and invaluable commodity, the life and health of the British soldier.

It is to be hoped that the short-sightedness of the policy which depreciates the efficiency of the army medical department will soon be felt, and the proper remedy applied. But no half measures will be effectual—no mere empty words or promises never meant to be fulfilled. A royal warrant must be issued, improving the condition, and granting, without reservation, the just requirements of the service. Till such time, the students of medicine should continue to decline to enter its ranks.

It remains only to declare what these requirements are.

In the first place, the rank required by the medical officers of the army, and without which they will not be satisfied, must not be relative, but *bonâ fide* military rank. It must place them, in all points, on an equal footing with their combatant brethren; it must give them precedence according to the dates of their commissions, and entitle them to all honours and salutes without exception. It must entitle them to act as members or presidents of courts-martial and courts of inquiry on all subjects; and when such courts have reference to medical officers or medical matters, medical officers should be specially selected to preside over them. There are only two admissible reservations as to the rank of medical officers—the one withholding from them purely military command; the other providing for the precedence, in all cases, of a commanding officer. But although command in military affairs is necessarily denied to the medical officer, there are other matters in which he should be allowed to exercise command, or an influence amounting to command. It should be clearly laid down that his representations on sanitary matters have the force of commands, and should be implicitly obeyed by commanding officers, in the absence of military reasons to the contrary. It should not be optional, as now, with commanding officers, to follow or ignore the advice of their regimental surgeons. They should be bound to follow it, or to furnish their reasons for declining to do so. At present, the position of the medical officer, as a sanitarian, is most unsatisfactory. He may make suggestions, which will receive no attention; but he is powerless to remove evident causes of disease if his opinion is opposed to that of his colonel.

Secondly—Reforms are required with reference to the duties which the medical officer has to perform. His proper work is the preservation of the health of his regiment and the care of the sick. This must occupy a very large proportion of his time, and its remainder should be left entirely at his own disposal for the study which is indispensable to keep him *au courant* with the progress of medical science. At present, his leisure is too much taken up in the preparation of returns and other matters which require no professional skill. A fitting establishment should be allowed for the performance of these and other subordinate duties.

Thirdly—All ranks of the service should receive a higher rate of pay than is now granted to them. The pay of the higher ranks may by some be considered fair; but it is to be remembered that that of the lower grades is certainly insufficient, that years pass before the higher ranks are reached, and that the prizes of the service are few. If proof be wanted of the insufficiency of the pay, it is enough to point to the fact that the supply of candidates for entrance into the service has failed. In commercial language, the market value is not offered for the commodity required.

But *bonâ fide* rank, enlarged influence, and increased pay, are not alone sufficient to secure the status of the medical service. As individuals, its members are of no estimation in the eyes of the military authorities. The service, as a body, must be recognised by the state—its indispensable usefulness acknowledged. The fate of an army, the happy or disastrous termination of a war, the issue of the nation's life and death, may turn upon the efficiency of the medical service. An engine of such might is not now governed and represented as it should be. The head of such a department should have power and weight in the councils of the empire. In England, he should be a privy councillor; in India, a member of the government, with a secretary in the Medical Department. The medical service would then no longer be a collection of officers without power or influence, looked down upon and despised; but a body respected and all

potent for good. Men of the highest scientific attainments would flock to its ranks; and under their well directed sanitary efforts, preventible diseases would disappear, the sick diminish in number, and the vast expenditure they are the cause of largely decrease. Let the present system be continued, and every evil will increase, while the service will fall lower and lower till its inefficiency is complete.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association will be holden at Bristol, on Wednesday, Thursday, and Friday, the 5th, 6th, and 7th days of August.

President—GEORGE BURROWS, M.D., F.R.C.P., F.R.S., London.

President-elect—JOHN ADDINGTON SYMONDS, M.D., F.R.C.P., F.R.S.Ed., Clifton.

All the meetings will take place at the Victoria Rooms, Clifton.

WEDNESDAY, August 5th.

1 P.M. Meeting of Committee of Council.

2.30 P.M. Meeting of the General Council.

4 P.M. First General Meeting of Members. The retiring President (Dr. Burrows) will make a few remarks. The new President (Dr. Symonds) will deliver an Address. The Report of Council will be presented, and other business transacted.

9 P.M. Through the kindness of the Committee, a *Conversazione* will be held at the Literary and Philosophical Institution, Bristol.

THURSDAY, August 6th.

11 A.M. Meeting of the Members of the New Council.

12 NOON. Second General Meeting of Members. The Address in Medicine will be read by WILLIAM BUDD, M.D. Papers and Cases will be read.

3.30 P.M. The Address in Surgery will be read by AUGUSTIN PRICHARD, Esq.

The Report of the Medical Benevolent Fund will be presented.

Papers and Cases will be read.

9 P.M. By the kind invitation of the President (Dr. Symonds) a *Soirée* will be held at his residence, Clifton Hill House, Clifton.

FRIDAY, August 7th.

12 NOON. Third General Meeting of Members. The Address in Chemistry in its Relations to Medicine will be given by WILLIAM B. HERAPATH, M.D., F.R.S. Papers and Cases will be read.

3.30 P.M. The Address in Midwifery will be read by J. G. SWAYNE, M.D. Papers and Cases will be read.

6.45 P.M. Dinner at the Victoria Rooms. Tickets One Guinea each. Gentlemen intending to be present at the Dinner are requested to send notice, as soon as possible, to Dr. MARSHALL, 8, The Mall, Clifton.

Members are requested to enter, on arrival, their names and addresses in the Reception Room at the Victoria Rooms, where cards will be supplied which will secure admission to all the proceedings.

Refreshments will be provided in the Victoria Rooms during the Meetings.

Members who wish for previous information may communicate with Dr. MARSHALL, 8, The Mall, Clifton.

The "Queen's" (situated close to the Victoria Rooms); the "Bath" (Clifton); and the "White Lion" (Bristol); are among the best hotels.

A clerk will be in constant attendance at the Victoria Rooms during the days of the meeting, and will give information regarding lodging-houses, which are numerous, and where beds may be had from two shillings a night upwards.

Papers have been promised by T. S. Fletcher, Esq., of Bromsgrove (On Vaccination and the best Means of Extending it); Graily Hewitt, M.D., of London (On the Operation of Transfusion in Obstetric Practice); Lionel S. Beale, M.B., F.R.S., of London (On the Deficiency of Vital Power in Disease, and on Support); George F. Burder, M.D., of Clifton (On the Climate of Clifton); W. O. Markham, M.D., of London (On Venesection); B. W. Richardson, M.D., of London (On the Abstraction of Blood as a Remedy); A. P. Stewart, M.D., of London (The Use of Belladonna in Intestinal Obstruction); R. W. Coe, Esq., of Bristol (On the Social Aspects of Syphilis); W. M. Clarke, Esq., of Bristol (On Excision of the Knee-joint); G. D. Gibb, M.D., of London (Illustrations of the Causes of Hoarseness and Loss of Voice); Thomas Nunneley, Esq., of Leeds (On the Calabar Bean); Charles B. Radcliffe, M.D., of London; Thomas K. Chambers, M.D., of London (On the Statistics of Fever); Erasmus Wilson, Esq., F.R.S., of London (The Dermopathology of Celsus); I. Baker Brown, Esq., of London (Three Cases of Artificial Urethra); Morell Mackenzie, M.D., of London (Hoarseness and Loss of Voice, treated by the Application of Galvanism to the Vocal Cords); George Harley, M.D., of London (On the Calabar Bean); S. J. Goodfellow, M.D., of London (On the Treatment of Pneumonia); George Budd, M.D., of London.

Papers and Cases will be read in the order of the dates at which notice of them has been received by the General Secretary.

Notice of Motion. The following resolution will be proposed by Dr. B. W. RICHARDSON at the meeting on Wednesday:—

"That a Committee be formed to consider and report on the question, whether it is possible to establish, under the direction of the Association, a Relief Fund, which shall enable the widows of members, or the orphans of members, or members themselves during sickness, to receive pecuniary aid by annuity or otherwise, on the principle of mutual protection and right; and that the Committee report as early as convenient to a special meeting of the Association."

PHILIP H. WILLIAMS, M.D., *Gen. Sec.*

Worcester, June 30th, 1863.

FORMATION OF A BENGAL BRANCH.

On May 27th, a meeting of thirty-one British and native medical practitioners residing in Calcutta was held at the house of Dr. S. G. Chuckerbutty, for the purpose of forming a Bengal Medical Association, which should also be a Branch of the British Medical Association. Dr. Norman Chevers, principal of the Calcutta Medical College, was unanimously called to the Chair.

Dr. CHUCKERBUTTY explained the object of the meeting, and moved the first resolution. He said:—

The object for which I have invited you to meet here to-day is the formation of a Medical Association in Calcutta, to be called the Bengal Branch of the British Medical Association. The subscription by each member to the British Medical Association is a guinea a year; for which he is entitled to all its privileges as well as to the weekly JOURNAL of the Association. You must all be familiar with the vast amount of good which the Medical Association in England has done and is still doing, in producing a high professional tone and in advancing scientific knowledge. It is needless, therefore, to dwell at length on its advantages. They are patent to all who have taken the least trouble to peruse

the medical periodicals of the day. The connection between that Association and ours will be one chiefly of an honorary character; for we shall not reject a member, if he conform to all the local rules, merely because he cannot afford also the additional guinea for the British Medical Association. In every large society there must be men whose means are small, and yet who may be useful members. This class of gentlemen will be welcome to our Association; and the only practical disadvantage in their case will be, that they will not be entitled to the JOURNAL of the Parent Association. Others, who are better off, will, of course, if they like, pay their additional guinea, and so partake of the benefits of both the Associations. The extra payment, however, will not be compulsory in any case; and the chief advantage of this sort of connection will be the privilege of getting our transactions published in the BRITISH MEDICAL JOURNAL. It would, no doubt, be preferable to have a journal of our own; but I fear the time is not yet come to enable us to sustain such a publication. That will be the fruit of much previous toil and professional combination.

In matters political, combination is strength; with us it means something more,—it means progress. The Association of the members of a learned profession like ours, for the purpose of mutual improvement and common protection against quackery and other evils, can be productive only of good. It is a sure sign that we are fully alive to the duties and responsibilities of our position, and that "sordid gain" is not the only thing which engrosses our thoughts. At the same time, it would be prudish to deny that the mercantile part of the business forms a considerable item in our calculations; nay, that few in our profession can afford to be so altogether unselfish as to do without pecuniary considerations. The practice of medicine is our calling; our trade, if you will have it so, by which we live. There are no two opinions about that. But then it is an intellectual calling—a calling which demands the active exercise of all our faculties, a calling which makes us minister to the relief of human suffering, and a calling which opens to us an unlimited field for the display of the finest feelings of our nature. The pursuit of this calling is attended with pleasure and pain, far different from what attend mere trading transactions. There are persons with whom the desire of gain is a ruling passion, and who rejoice or grieve as they are successful or disappointed in making money. With the medical man it is quite otherwise. It is not the pecuniary speculation; it is the cure of his patient which is the grand object of his ambition. In this he often succeeds, often fails. His satisfaction when he succeeds is altogether unalloyed; his distress when he fails, though it may be owing to the incurable character of the disease, is sufficiently painful; but when that failure proceeds from his own ignorance, he is conscious of a pang more acute than his probable worldly loss would alone account for. Thus, of all men, the medical practitioner is daily put in mind of the gravity of his office, and that he must prepare himself with all diligence for the delicate duties he is called upon to discharge. I feel confident now that you will all agree with me in thinking that it is incumbent upon the members of our profession to avail themselves of every means in their power to acquire the fullest knowledge upon each subject; and further that, as the experiences of no two persons are exactly alike, the submission of individual results to the test of free and public discussion is the safest way of insuring any material progress. The mutual interchange of ideas, the friendly comments, the discovery of errors, the addition of information from different quarters, the growth of a kindly interest in one another, and the maintenance of an *esprit de corps*, are only a few of the immediate advantages of Association. The stimulus to scientific research, and the public respect and confidence which

the earnest pursuit of truth will, at all times, inspire, are other collateral benefits which follow and which operate so largely for the human good. To sustain the faltering, to encourage the timid, to guide the enthusiastic and to draw lessons from the learned, are functions no less important in the diffusion of knowledge than the instruction of schools. The school-days with all must come to an end; nor is it desirable that they should be prolonged beyond the passing of the necessary examinations to qualify for the profession. The real battle of life commences only after the school forms have been left behind; and it is now that the practitioner has to go through a dangerous probation. He is called upon for the first time to apply the medical knowledge he has been hitherto acquiring to actual practice, and doubts and hesitation are now apt to paralyse his mind. What would he not give at this juncture to have the opportunity of comparing his own ideas with those of others, and of learning from his seniors the stores of wisdom slowly accumulated in the course of long years? For such a person the meetings of a Medical Association must possess a strong attraction. Then again, what a comfort would it not be to a timid man to find that what he has done others had done before him, and that he need not repine if he have failed like them! What trouble, what failures, what disappointments, would it not save persons of an ardent disposition to subject themselves to the criticism of older men who had already trodden the same path before them! And what instruction would not even grey-headed practitioners derive from their younger brethren in investigations which require leisure, youth and industry! It is hence neither to the inexperienced alone, nor to the timid alone, nor to the ardent alone, nor to the grey-headed alone, that a Medical Association offers its advantages; it promises to be equally beneficial to all. So, I trust, none of us will hold himself aloof from so desirable an undertaking on any of these pleas, seeing that we all alike need information in one way or another; and, besides, that it is our duty to assist whatever may serve to advance the honour and interests of our common profession. It has been said that the natives of Bengal make capital school-boys, but that this early promise is never fulfilled in the years of manhood. Now, I, for one, do not believe in the truth of that allegation. I think it is quite unfounded, and that it was made on insufficient data. However, it is useful, in order to disprove it, to make the vindication not only in words but also by acts. Our actions must show that we do not cease to labour with the close of our college career; that, though we make no ostentation, nevertheless we continue to work, to observe, to think, to compare, to calculate, to reason with even greater earnestness than we did in our younger days; that we do really profit by the experience of advancing years; and that we are not too proud to accept knowledge though it may come to us from our juniors. I may say this, at least, of myself; that the older I grow the more am I convinced of my own deficiencies and shortcomings, and the more do I feel the necessity of an association of my professional brethren where I could share in the fruit of their industry, and, while profiting myself, contribute also my own mite to the general stock of knowledge. And what I feel, I doubt not, others must feel too more or less. For we know very well that the field of observation in medicine is too large for any one individual to successfully occupy alone the whole range of it. Some by choice, some by necessity, some by accident, devote themselves only to certain parts of it; and it is fortunate that they do so; for, without specialists, medicine could hardly have made the vast progress it has accomplished. Take, for instance, in civil practice, the obstetrician, the ophthalmologist, the dermatologist, the psychologist, the dentist, the aurist, the operative surgeon, the stethoscopist; each of these has paid particular attention to one branch of medical practice, and, hence, in that speciality he is tacitly admitted

by all men to be an authority, being vastly superior to the mere general practitioner. Or take again, in military practice, the naval or army surgeon; the circumstances of his position during war compel him to adopt rules and measures totally different from those which hold good during peace or in common civil practice. He sees injuries of a particular class on a large scale under the most trying conditions; and these conditions accordingly modify his rules of practice. On the subject of military surgery therefore, he becomes a specialist by virtue of necessity, for he is obliged to master carefully, and be guided by, a class of circumstances which do not occur in civil practice. Thirdly, we may take a practitioner who has no special liking for any particular subject, nor is he obliged to devote himself to one from necessity; and yet he may be so struck by a fortunate *run of cases* in his practice of a novel character that by sheer accident he knows more about them than any other mortal. He becomes thus a specialist almost against his will by mere chance or accident. All these different kinds of men may hence most advantageously become the instructors of each other, as well as of the great body of the profession who claim no special knowledge of any sort.

Thus much for the mere practical part of our vocation. There are, however, other kinds of knowledge upon which that practice is most wisely based, and an intimate acquaintance with which is, at least now-a-days, held indispensable to the scientific physician and surgeon. These are anatomy, physiology, pathology, chemistry, materia medica, all very extensive subjects, in which numerous labourers are engaged all over the world to make fresh discoveries, to achieve new triumphs. I do not see why those of us who have the necessary strength and opportunity should not join these bands of pioneers of science, and favour our Association with the results of their investigations. Lastly, there are a host of other subjects of professional importance, such as natural history, statistical returns, medical topographies, epidemiology, sanitary reports, etc., which are here yet in their infancy, and the culture of which would be of the highest practical utility. Why should not the Bengal Medical Association receive valuable contributions on all these matters?

But, over and above all these things, what I wish most to see in this country is a high tone of *professional honour*. In the infancy of society, it is true, there are few occasions for the display of chivalrous sentiments. Then the struggle for existence supersedes every other consideration. The produce of the chase, the wild berries of the forest, and the fish cast on shore by accident, are the rude provisions upon which people in such communities have to subsist, and in proportion to the scantiness of the food is the acerbity of the struggle between individuals to obtain a morsel of it. In young colonies, too, as those of Victoria and California, and in a state of famine even in older countries, the sentiment of honour has to give way before the more imperious necessity of the moment. But in all well-regulated civilised societies the sense of honour is the vital spring of prosperity. Without good faith how could business of any kind be carried on at all? Good faith merely, however, is not professional honour. That means more; it means purity of principle and intention, and a desire to give every man his due. It is such a sense of honour which is the great charm of a good physician. A medical man who conducts himself honourably on all occasions and towards everybody, being upright in his personal behaviour, upright in all pecuniary relations, and upright in his bearing towards his brother practitioners, is the very *beau ideal* of our noble calling. Any one who can lay his hand on his heart and say that he has acquitted himself satisfactory in all these respects, possesses in perfection the sense of professional honour. Such a man was the late Sir Benjamin Collins Brodie, and his great name hence became synonymous with all

that was honourable and right minded. To imitate him in this to the utmost of his ability ought to be then the highest ambition of every good man among us. But I am sorry to confess that the tone of professional feeling in this country is not yet in many cases of that high order. It is not at all unusual here to meet with breaches of etiquette. In my own experience I have noticed many instances of them. To speak ill of others seems to be the stock in trade with some persons, whereby they hope to serve their own selfish ends. This seems to be the case with certain ex-students of our medical college; nor is the evil unknown even among men of a higher grade who surely should know better. It will, therefore, be a most important duty of the Bengal Medical Association to help us in raising the tone of professional honour to the same noble platform that it occupies in European countries, and this we hope to do through the moral influence that it must necessarily exert.

I myself see no difficulty whatever in doing all this and more, if we are only true to ourselves and determined not to forsake our post. I say, then, gentlemen, let us gird up our loins and resolutely push on. Let us redeem the honour of this country and add lustre to our names. Let us at once form a Medical Association and invite the cooperation of all legitimate practitioners in the good work we have proposed to ourselves. Let us urge on, and God will help those who know how to help themselves.

The plan of operation I would propose is to have weekly or monthly meetings for the ordinary business of the society, and annual meetings for the purpose of receiving reports and addresses upon the different branches of knowledge, *in sections*, one after another, much in the same manner as in the British Medical Association. This would combine all the advantages of medical societies with those of the more catholic Association. The ordinary meetings will be mostly attended by gentlemen living in and about Calcutta, and their business will consist in discussing all interesting cases of disease and pathological specimens occurring in hospital and private practice almost every day, and in receiving the results of experiments and individual observations. The annual meetings will be a sort of festive occasion once a year, when the Mofussil as well as the town members will come together to hear the retiring President's address on the operations of the Association during the expiring year, and also addresses from eminent members upon the progress of knowledge in the various sections, to receive reports and contributions which any gentlemen may choose to present on this special occasion, and to elect the office-bearers for the following year. The debates will be continued from day to day until the whole business is concluded, which, occupying only a limited number of days during a short time, will be a great convenience to members coming from a distance. It will give a pleasant holiday to all hard-worked practitioners who, by the increased facilities now offered by the lines of railway, will thereby have the opportunity of knowing more of each other than they could have done under the old rude ways of travelling. Then, any town members and others, who might wish to be hospitable, might invite the Association to meet in their houses on given days, promoting by such friendly receptions the happiness and enjoyment of all. Indeed, we may hereafter follow in this respect the practice of the British Medical Association, and meet in different towns in different years. For that, however, the circumstances of this country are not yet ripe, nor will they be so till the railway system is more complete and the habits of the people are considerably changed. In the meantime, therefore, it will be sufficient for us to inaugurate the plan of ordinary and annual meetings, leaving all further improvement to the working of after years.

I do not wish it to be understood, however, that the Association I have proposed is to receive nothing but

elaborate communications. Elaborate communications are very good things in their way and much to be desired; but even the oldest societies in Europe do not always get them; much less are they to be expected by a new and inexperienced one. With all such institutions there is a day of small things, and the day of small things is not to be despised because it does not immediately give us brilliant results. That which begins in a small way may, for aught we know, begin in the safest way. All things must have a beginning, and of a nursing it is not right to expect the wisdom of maturer age. We ought, therefore, to be satisfied if our infant Association receive at first only verbal communications or mere statements of facts and cases occurring in the practice of its members. We ought to be satisfied if we have at first meetings even once a month or once in two months, by day-light if necessary, to save expense or to avoid hurting the feelings of the poorer members who may not be able to subscribe, and yet whose natural pride would be wounded if other people paid for them. But this would be an extreme case which I must say I do not anticipate. I would also propose that we should meet in some easily accessible place in the native part of the town if possible, for I know that few of our native brethren would be willing or able to pay for conveyances for such an object, and that we shall certainly lose most of them if our place of meeting be any distance from the heart of their own quarter. Our principal object for some time must be to secure members, and the more of them we have the more certain shall we be of ultimate success. We want earnest and devoted souls, we don't want comforts; we want sound intellectual food, we don't want gilded balls; we want humble and patient workers, we don't want the pomp and parade of the affluent; we want labour by the light of heaven, we don't want costly lamps for which we cannot pay. The good of the profession is the single object of our desires; and, so, let us have an Association, let us have members, let us have meetings, let us have facts to discuss and, if our means will not permit anything grander, let us meet like honest men in the broad day-light in the most accessible spot to our poorer brother practitioners, without waiting for lighted chambers in the most fashionable quarter of the town. If we proceed in this humble spirit, with an earnest determination manfully to do our duty, I doubt not our efforts will be crowned with success. At all events it will do us no harm even if we did fail, for that will be owing to no fault of ours. But when did you ever hear of men failing in a laudable work of this kind if they entered upon it in a proper frame of mind? Where there is a will there is a way; and where there are resolute spirits engaged in a difficult enterprise no obstacle will be too great for them to overcome. Invoking, therefore, the blessing of God Almighty upon our proposed Association, I beg now to move the first resolution:

"That this meeting form itself into the Bengal Medical Association, of which every qualified practitioner of medicine is eligible to be a member."

Dr. FAYRE seconded this resolution. He addressed the meeting in a few but earnest words, dwelling most strongly and appropriately on the necessity of such an Association to promote the honour and the interests of the medical profession. The motion being put to the vote, was unanimously carried.

Mr. SHIRCORE moved: "That the following gentlemen be nominated members of a provisional committee to draw up the rules for the conduct of business, and also to request the British Medical Association to allow this Association to be one of its branches:—Dr. Joseph Fayrer, Dr. S. G. Chuckerbutty, Dr. Mohindro Lal Sircar, Dr. Juggobundo Bose, Baboo Kanylal Dey, Mr. Tameez Khan."

This was seconded by Baboo KANYLAL DEY, and carried unanimously.

Dr. MOHINDROLAL SIRCAR proposed—

"That Dr. S. G. Chuckerbutty, as the projector of the Association, be appointed Chairman of the Provisional Committee, with authority to call its meetings and arrange other matters of business."

Dr. Sircar spoke at considerable length on the advantage of the Association. In the course of his remarks, he said:—The interest of humanity demands that medical men should always keep pace with the progress of knowledge that either directly or indirectly bears upon the healing art; that they should act in accordance with the strict principles of professional ethics; and that their rights and privileges should be religiously guarded against the inroads of charlatans and quacks. For the attainment of these various objects, what seems to be the most important agency? We all know the most common maxim, and Dr. Chuckerbutty has already referred to it. Union is strength even in the inanimate kingdom—more so in the irrational animate kingdom—most so in the rational kingdom of man. In the inanimate kingdom, the strength results from the simple addition of the separate strength of each element. In the irrational animate kingdom, the strength is multiplied considerably by the presence of the volitional factor in each individual. In the rational kingdom of man, the strength of union is not only considerably augmented by the volitional factor as in brutes, but is rendered progressively increasing by the presence of another most important factor—that of improvable reason, assisted by the agency of language. There is no doubt, therefore, when we organise ourselves into a body, there will be at each of our occasional or regular meetings considerable addition to the previous stock of our individual knowledge; and we shall then feel the necessity, I had almost said enjoy the luxury, of acting in harmony with, instead of against, each other. Dr. Burrows, in his address at the last annual meeting of the British Medical Association, has, in allusion to this subject, very beautifully said: "Each occasion of contact and honourable collision with his fellow-labourers tends to improve the outer and the inner man. As the pebbles on the sea-shore, by their contact and collision with each other at each succeeding tide, gradually lose their primitive roughness, and assume a graceful and polished exterior, and, when moistened by the spray of the ocean, appear in a most attractive guise; so is man by coming in contact with his fellow-men, by social and intellectual intercourse, raised to a higher order of being." It is true that the struggle for existence amongst professional men, especially medical men, unhonoured, unrewarded, nay, abused as they generally are by the very public for whose welfare they devote all their energies,—I say that the struggle for existence may be sometimes so hard that weaker brethren may be almost tempted to carry on that struggle after the manner of the inferior animals that perish; in other words, they may endeavour to live at the expense of the other practitioners, by running them down by gestures or words or deeds. To these, an Association like the one we have in contemplation (and, after the resolutions that have been unanimously passed, may I not hopefully add, we have already formed?) will prove of inestimable service. They will learn the value of patience. They will learn that they can maintain their own dignity only by maintaining the dignity of the profession to which they have the honour to belong. They will learn that great is truth, greater honesty; and both will ultimately triumph and prevail.

If in thus keeping ourselves foremost and uppermost in the swelling tide of ever advancing knowledge, if in strictly adhering to honourable principles in our mutual dealings, we could always command the respect of the public whose interests we consider our highest privilege to seek, and could secure our rights and privileges, then perhaps we could solely devote our time and attention to strictly scientific pursuits, then we could leave poli-

tics and other matters to other hands. But all diseases are not curable; many diseases, which our interference can do nothing for, are sometimes better left alone and to nature; nay, it is an undeniable fact, however mortifying it may be to our pride, that quacks and charlatans, stepping in when we desert our patients, often effect cures which perhaps we had been retarding. To these various facts are we to attribute the distrust and suspicion with which our real services are looked upon. To them are we to attribute the most unmerited abuse showered upon individual members and the profession at large, by persons displaying the grossest ignorance of our science. To them are we to attribute the slowness with which our opinions are received. To them are we to attribute the readiness with which the body politic frustrates our most cherished plans and schemes for the benefit of public health. To them are we to attribute the rise and triumph, however temporary, of various systems of quackery, as hydropathy, homœopathy, and what not. Against them we ought to guard ourselves; and we can only do so by forming ourselves into an organised body. Thus constituted, we shall be in a better position to deliberate calmly and dispassionately on the most important and practical part of our profession. When each of us brings his stock of knowledge to the meeting, we shall see that we shall have more reason to humble ourselves for our ignorance of the operations of nature, than to plume ourselves upon our achieved triumphs. We shall then learn to depend more upon the conservative powers of the organism than upon our own interference. We shall feel practically the value of Bacon's immortal aphorism, "Man is the interpreter and minister of Nature," not her lord. We shall, as a consequence, be more guarded in holding out promises when they are certainly to disappoint, and thus to gain for ourselves confidence and respect. In this way gradually, but certainly, we shall succeed in maintaining our own status; and when we thus prove ourselves to be the important and needed section of the community, it will be very hard for others to trifle our opinions; nay, our united opinion will acquire a momentum which even the ruling bodies, the powers that be, will find it impossible to resist, and which perhaps they will find sometimes necessary to welcome.

Baboo NILMADUB MOOKERJEE seconded the resolution, which was unanimously carried.

Dr. JUGGOBUNDO BOSE proposed the following resolution, which was seconded by Baboo BROJONATH CARFORMA, and unanimously carried:

"That, as soon as their report is ready, the Provisional Committee be empowered to call a general meeting of the Association, to which that report is to be submitted for consideration; and, on its being received and adopted, the Association shall at once proceed to elect its office-bearers for the current year, who are to be charged with its future business."

On the motion of Mr. TAMEEZ KHAN, seconded by Baboo BROJONATH BUNDOO, a vote of thanks was unanimously passed to Dr. Norman Chevers for his able conduct in the chair.

In closing the proceedings of the meeting, Dr. CHEVERS observed that, when he entered the room that evening, his insight into the proposed objects and constitution of the Association was by no means clear. Having now heard the question fully stated, he considered the plan to be excellent, and likely to work thoroughly. He felt the present occasion to be one of great and solemn importance. A small body of European and native medical men had come together for the first time, to form, for their mutual improvement, a society which he believed would probably live and flourish as long as the medical profession in Calcutta should endure. He reviewed the progress of the various medical societies which had been organised in Bombay and Calcutta, insisting upon the novelty and great importance

of the present movement, the leading object of which was to unite the European and native members of the profession into one body for the promotion of medical science, and for the maintenance of professional honour and good feeling. He considered that the professors of the Medical College ought to take a very active part and interest in working out the great objects of this body, whom he should now address as *the Association*. Every skilful labourer, whose heart was truly in his task, took honest pride in the work of his own hands. The artist when he sent out his great picture, the sculptor when he sells his statue, was not satisfied to know that silver rang on his palm, and that his pocket was heavy with yellow dross. The first desire of these men was, that their works might have a world-wide fame. Medical professors had this feeling perhaps in a higher development. Consequently he and his brother professors were not satisfied, after the University had conferred the degrees, to lose sight of those students with whom they had so long laboured; they took a vivid and cordial personal interest in their pupils' after success; and it would give them true pleasure to meet their young professional friends often in such a society, and to be assured that they were practically working out in the city those lessons which they had been taught in the school. A society for the promotion of high professional honour and good feeling was a good thing every where. Such a society was a great desideratum in Calcutta. He considered, however, that its objects would be readily carried out. There was no want of the essential elements; there was abundance of honourable principle; there was no lack of generous feeling; by mutual association, these would soon become moulded into working systems. He had grown grey in the profession; and his whole experience had combined to establish the principle that, to rise to the highest position as a medical man, it was unnecessary to employ unfair "pushing" and to make stepping stones of one's brethren's faces. He was sorry, but not discouraged, to find that the number there assembled was small. Still they would remember how few those were who, pressing shoulder to shoulder, held Thermopylæ. If thoroughly united and steady in their purpose, those now present were fully capable of making the Association a great success.

Correspondence.

THE DERBY HOSPITAL.

LETTER FROM WILLIAM OGLE, M.D.

SIR,—I thank you for the passing compliment in noticing the part which I have taken in the Derby contest. It is, however, a disappointment that you can offer no better solution to the difficulty, than that our hospital book ought to have been *gilded*. No doubt a salary would bring candidates in troops, as we have for poor-law medical service; but surely it is of first importance to uphold the dignity of the office. May the day be far distant, when mere pay shall be thought adequate to secure honourable service in any department of the profession.* Better pay and better position to the house-surgeon—two house-surgeons instead of one, if you please; but the physicians and surgeons must either be honorary, or they will cease to exist except in name.

The hint that the Derby mode of cutting the Gordian knot is an indication of the advent of the "one faculty" system, is much more worthy of your pen. If the governors had said, "We will abolish the distinction between physician and surgeon"—a distinction which

practically does not exist outside the hospital—if they had said, "We will elect the best legally-qualified medical man whom we can find; we only require him to take the same class of cases in the hospital which he accepts in private practice"—I would have supported them; indeed, I proposed this alternative. But, no! they say, "We will keep up the old-fashioned distinction; we will have pure surgeons and pure physicians (*if we can get them*); if not, we will take a general practitioner!" an insult to the physician, to the general practitioner—a double insult, being an insult under colour of a compliment.

If I mistake not, I have been fighting the battle of the general practitioner quite as much, and more, than of the physician. I say more than of the physician; for I have felt all along that the physician (worthy of the name) needed no special pleader. I was, as I have said already, prepared to give up the distinction between him and the general practitioner, if the time were come; and, therefore, even when speaking in support of the distinction, the full force of my argument was directed to the importance of so ordering our hospital ethics, as that we might secure the services of the first medical men in the neighbourhood—gentlemen who are in a position to restrict themselves to first-class and to consultation practice. This is the kernel of the nut; first-class practice is in abeyance. Hospital physicians and hospital surgeons (pure) are rare because consultations are rare, and consultations are rare because

I am, etc., WILLIAM OGLE,

Senior, and now sole, Physician to the Derbyshire Infirmary.

Derby, July 21, 1863.

P.S. Derby has upwards of 50,000 inhabitants. Even inclusive of the house-surgeon at the Infirmary, there is not more than one medical man to every 2000 people. There is a neighbourhood second to none in wealth and general intelligence; and we have been advertising for a physician for three months, and cannot get one, because says one, "There is no room for him"; says another, "You must give a salary"; says a third, "There is something rotten in the state of Denmark." Let your readers determine who is right.

LARGE CALCULUS FROM THE FEMALE BLADDER.

LETTER FROM F. H. HARTSHORNE, L.R.C.P.Ed.

SIR,—At the late meeting of the Yorkshire Branch of our Association, Mr. H. Jackson exhibited a calculus weighing five drachms and two scruples, which had been removed from the urethra of a female by vaginal section. The report of the meeting in our JOURNAL states that "no record of so large a stone removed from the urethra of a female, had been met with by Mr. Ward or Mr. H. Jackson; and Dr. Aveling stated that he had not been able to meet with one."

I believe that the largest stone upon record which has been removed through the female urethra is in my possession. It weighs ten drachms; its length being two inches, and its circumference three inches and three-quarters. This, with two other calculi, were removed through the urethra without any incision. The patient is still living, in good health, and has perfect command of her bladder. An account of this case will be found, with a woodcut, in the "Transactions" of the Shropshire Branch of the British Medical Association, reported in the JOURNAL, Sept. 4th, 1858, p. 747.

I am, etc., FREDERIC H. HARTSHORNE.

Broseley, July 20th, 1863.

* When the patients pay, then and not till then, can I see any professional prospect of having paid doctors to our hospitals.

MODE OF ELECTION OF COUNCILLORS OF THE COLLEGE OF SURGEONS.

SIR,—The College of Surgeons has lately undergone considerable excitement in the election of Councillors; and, if one may "compare small things with great", the contest has been as palpitating and triumphant as the late scene in the House of Commons on the question of the retention of the Exhibition Building, which will, no doubt, impart to foreigners exalted notions of a calm deliberative assembly.

The combat for place and power—the *honor nomenque*—has been fought with equal zeal among the six candidates for the office of Councillor. Two gentlemen high in position have been displaced, and three new Councillors elected. This has been a "severe blow and disappointment" to the admirers of the routine system; but victory has been gained exclusively by London surgeons, and chiefly by London voters. Where is the country champion of the country Fellows? Why did not one appear in the arena of conflict? Mr. Turner of Manchester beat a retreat to the more agreeable pastime of the banquet. By ignoring his candidature at the last hour, he precluded the possibility of bringing into the field some other gentleman whose reputation in the provinces would not have sullied the dignified bench of Councillors in the board-room of the College. I have no desire to pit a country against a town Councillor; but, as the College is no longer a London College, but that of all England, a small infusion of country magistrates would be useful whenever the Council discusses questions affecting country practitioners; besides, it would be a legitimate expression of a compliment to rural men.

In these days of rapid progression by steam-power and pen-power, the literature of the profession is widely disseminated throughout the country; and the hospitals of the large provincial towns would supply the amplest materials of surgical erudition and experience. Bucolic surgeons need no longer be Bæotians. Can a thoroughbred metropolitan surgeon comprehend the varied condition and requirements of country practitioners as correctly as gentlemen living habitually in the country? Certainly not! The education, habits, and general tone of medical men in rural districts differ much from their more polished *confrères* in town. The Æsculapians of the black country, the potteries of Staffordshire, of the wilds of western Yorkshire, and the miners of Cornwall and Merthyr Tydvil, are very different in intellectual and social aspects from those of the metropolis; and I conceive a Councillor acquainted with them would better suggest advice in relation to them than a mere London man.

The present mode of election at the College, by personal attendance, inflicts a hardship on gentlemen living beyond fifty miles from Lincoln's Inn. Fellows who come from a distance—from Liverpool, Manchester, Newcastle, Bristol, from Northumberland, Wales, or Cornwall—often cannot reach London in time to vote, and are practically disfranchised. Besides the railway fare and hotel expenses, there are the loss of time, the neglect of patients by transferring them to some *locum tenens* in the meantime, and danger of losing them by hurting their feelings. Dr. Watson, in a letter to Dr. Vose in reference to the question of fees, adverts to the difficulties of leading men going to see patients in the country at a distance, and avers that it does not pay. If their time is so valuable to first-class men in the metropolis, that they are ill requited if they get fifty guineas for a hundred miles; by parity of reason, leading surgeons in the great towns must be very ill requited if they make a sacrifice of money, time, etc., by going all the way to London simply to record a vote. The remedy is in the hands of the College authorities and Fellows. Let the

College and Fellows petition the legislature for a short Act of Parliament to enable them to vote, as the Chancellor of the Exchequer passed a Bill to enable the clergy to vote by proxy at Oxford and Cambridge. Mr. Gladstone's humane and considerate Bill relieved many a rector, vicar, or curate from the hotbed of political and polemical warfare, as well as the fatigue and danger of travelling to Oxford and Cambridge on occasions of elections. It enabled them to record their votes on stamped voting-papers witnessed by a magistrate or clergyman. Besides this easy mode of unexcitable and passionless voting, there is abundant proof of the efficacy and security of voting, free from the chances of fraud, in the plan adopted in the elections of the Medical Benevolent College and many other institutions. There is everything to recommend the use of *proxy-papers*; they save time, money, and personal canvassing, and avoid many disagreeable collisions. The choice, moreover, would more likely be founded on real recognition of high claims, instead of being influenced by private friendships to serve mutual purposes.

I am, etc., R. W.,

A Fellow by Examination of the Royal College of Surgeons of England; one practically disfranchised this year.

July 1863.

THE TREATMENT OF DISEASE.

LETTER FROM C. R. BREE, M.D., F.R.S.

SIR,—The paper of Dr. Lionel Beale in your last number is a most important contribution to those who are engaged in the study of the treatment of disease. And who is there in the vast phalanx constituting the medical profession who ought not to be a student of disease? Years may pass over the practitioner's head; he may store up what he calls experience of the past; and he may, with the most praiseworthy object and the most profound philanthropy, bequeath the results of such experience to the rising generation; but, unless that man founds his practice upon the study of disease, he may as well—nay, far better—throw his manuscript and his life-long records into the first river he comes to in his morning walk. So-called experience has, indeed, much to answer for. It is the formation of principles affecting the lives of thousands of human beings upon the baseless shadow which is cast over medical science by strong prejudice, and mistaken views of results untested in the crucible of philosophy. Experience, as the word is usually used, is, I say, the bane of medical science; for it puffs up the ignorant with a false knowledge, and gives a colour—a fatal colour—of truth to that which is intrinsically untrue. But there are appearances, now growing into strong realities, which will inevitably destroy the influence in medical science of a miscalled and dangerous experience.

Let it then be known throughout the length and breadth of the land, that the professor of that science which is alone the basis of sound medical treatment—physiology—in the first medical school of Scotland—Dr. Hughes Bennett—and the professor of the same chair in at least one of the first English schools—Dr. Lionel Beale—have both enunciated in clear and unmistakable language the great dogma destined to reform the practice of medicine, that "bleeding is not the treatment for inflammation". It is impossible to overrate the importance of this grand truth, which has been for many years gradually making way in the minds and practice of the observant and the thoughtful practitioner. Amid the din of contending opinions—amid the claims of experience on the one hand, and the dogmas of theoretical speculation on the other—physiology has been silently and surely making her way. She has been pointing out in language which is unanswerable, for it is the language

of truth, that all the assumed phenomena upon which are based the practice of bleeding in inflammation are pure fallacies; that the *rubor, calor, tumor, and dolor*, do not constitute its definition; that the theory of a determination of blood to an inflamed part is unsound; that the notion of reducing the amount of blood in an inflamed part or organ by bleeding is purely fallacious. At the same time, observation has come to the assistance of physiology. It has pointed out that those who are bled in certain inflammatory disease almost surely die, while those who are nourished or stimulated as surely recover; that inflammation does not attack the vital organs of the strong and the robust, but those of the pale and weak. Hence that beautiful series of facts by which Bennett has established the doctrine of an exudation as the primary fact of inflammation, and not its result; and by which he has been led, by great research and ability, to an anæsthetic, as opposed to an antiphlogistic system of treatment.

I need hardly say that this is a subject of vast and surpassing importance. The lives of thousands of human beings daily hang upon the just appreciation of this matter. The memories of two of the greatest men of modern days—the statesman Cavour, and the warrior Stonewall Jackson—demand that the cause of their deaths be examined by the light of modern science. Truth speaks in language which all can understand; and to this we cannot—we dare not—turn a deaf ear.

Let me then entreat my medical brethren to bring a calm and philosophic spirit to the examination of this question. Let us avoid a too learned diction, or a too refined mode of reasoning. Let us not rely upon books, or authorities, or dogmas, or beautiful classical writing, or scholastic theories; but let us rather examine the question with the light of common sense and that true philosophy which makes facts the basis of its theory. Let us give up our prejudices, and forget all about what we call our experience. Let us meet the question as men upon whom rests a deep and a lasting responsibility. It is, I repeat, one of immeasurable importance; and the credit of a noble profession, the honour of a great science, the dictates of humanity, and the loud demands of justice, equally call upon us to settle it for ever.

I am, etc., C. R. BREE, M.D., F.L.S.,

Physician to the Essex and Colchester Hospital.

Medical News.

ROYAL COLLEGE OF SURGEONS. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 28th:—

Atkinson, Warner, B.A., Lond., Harrington Square
Barrow, Thomas Samuel, M.D., St. And., Chelsea
Booth, William Reuben, Great Queen Street, Westminster
Cornish, George Bishop, Taunton
Folliott, James, Canonbury
Frost, Walter, Portland
Havnes, Stanley Lewis, Pall Mall
Hills, Rowland, Newcastle-on-Tyne
Hughes, David, Cilian Ayron, Cardiganshire
Hughes, William, Eglwyswv, Pembrokeshire
Jackson, Henry William, Cumberland Terrace, Regent's Park
James, Joshua, Bristol
Kennedy, John, Edinburgh
Knott, William Parsons, Blisworth, Northamptonshire
Lisle, Richard Philip, Cardiff
Meade, Warren, Middleton, co. Cork
Moyenak, Edward Webber Warren, Cork
Renshaw, Charles Jeremiah, M.D., St. And., Ashton Mersey
Rodgers, John, Omagh, co. Tyrone
Scott, Thomas, Omagh, co. Tyrone
Stimpson, Walter, Islington
Thyne, Thomas, Edinburgh
Watson, James Jonathan, Kilburn
Whiteley, John, Wakefield
Wright, Morden, Islington

DEATHS.

CHURCHILL, James M., M.D., at Watford, aged 66, on July 27.
NELIGAN, John Moore, M.D., at Dublin, on July 24.
OGILVY, James, M.D., at Coventry, aged 54, on July 25.
SATCHELL. On July 19th, at Taunbridge Wells, aged 1 month, Margaret Ada, daughter of *William C. Satchell, Esq.

THE GERMAN HOSPITAL is to be rebuilt, for the accommodation of seventy in-patients.

MR. HANCOCK. The students of Charing Cross Hospital have presented Mr. Hancock with an address of warm congratulation on the occasion of his election to the Council of the College of Surgeons.

FEMALE BLONDINISM. The Queen has, we are glad to see, recorded her disapprobation of the brutalising exhibitions of Blondinism, which have already caused so many deaths.

CONDITION OF MILLINERS AND DRESSMAKERS. Mr. Kinnaird asked the Secretary of State for the Home Department whether he would give directions that the Children's Employment Commissioners should institute as soon as possible the inquiry already referred to them into the condition of milliners and dressmakers. Sir G. Grey said he did not know exactly on what branch of the inquiry the Commissioners were now engaged, but he would desire them to take up the condition of the milliners and dressmakers as soon as they could without interfering with any important question now before them.

DEATH OF DR. J. MOORE NELIGAN. Since our last, the medical profession in Ireland has sustained a blow not easily remediable, in the unexpected death of Dr. Neligan, at his residence, Clonmel House, near Blackrock. Although Dr. Neligan had been suffering for some time from affection of the kidney, and had found it necessary in consequence to exchange a residence in town for the country, still no apprehension of immediate danger was entertained till a few days before his death; and he had been enabled within a week to fulfil his professional duties. On Thursday last, he was so much worse that little hopes were entertained of his recovery; and on Friday evening (July 24), he expired from, as we understand, uræmic poisoning, the result of the chronic malady of which he was the subject. Dr. Neligan's name will be best remembered by our readers in connection with the *Dublin Quarterly Journal*, of which he was for many years the editor, and the character of which was never higher than when conducted by him. To the public, he was known as the author of works on *Medicines* and on *Skin Diseases*, and as the editor of *Graves' Clinical Medicine*—labours sufficient of themselves to perpetuate his name as an assiduous and energetic physician. His connection with the King and Queen's College of Physicians, for the presidency of which he was a candidate last year, was long "in years and honours"; and his loss will be deeply felt by the many whose friendship his professional and private worth had secured to him. (*Dublin Medical Press.*)

THE ROYAL COLLEGE OF PHYSICIANS. The President and Fellows of the Royal College of Physicians held a *conversazione* last Saturday evening. Specimens illustrative of the arts and sciences were shown in the library. At one end of the room, a splendid collection of candelabra, vases, inkstands, and other objects of art in aluminium and aluminium bronze were exhibited by Messrs. Mappin Brothers, accompanied by several ingots and bars of the metal and its alloys in the unmanufactured condition. Some large lumps of the new metal, thallium, contributed by its discoverer, Mr. W. Crookes, attracted a large amount of attention; and Mr. Sonstadt showed several pieces of magnesium prepared by the modification of Deville's process, lately patented by him. Mr. Appold exhibited his apparatus for freezing water; and Mr. C. Gore's new gas furnace, with which several

pounds of cast-iron or copper may be melted on a drawing-room table in a few minutes, without a blast, was examined with great interest by the scientific men present. Dr. Lionel Beale's microscopic preparations of the brain met with considerable professional patronage; and the exhibition of the circulation of the cell contents of different water plants through Messrs. Powell and Lealand's 1.25 inch microscopic object glasses was crowded with observers throughout the evening. Several harpoons and other weapons used in elephant hunting in Central Africa were sent by Mr. Frank Buckland; and Mr. John Leighton exhibited a beautifully executed design for a shield, illustrating the months and seasons of the year, which was greatly admired for its poetic treatment and classical simplicity. Although the season is so far advanced, the *soirée* was attended by nearly the whole of the most eminent of the medical profession in London. Refreshments were served in the lower hall, and the company did not separate until nearly midnight.

VACCINATION (SCOTLAND) BILL. At an extraordinary meeting of the Royal College of Physicians at Edinburgh, held on Thursday, July 16th, 1863, the following resolutions were moved by Professor Simpson, seconded by Dr. Myrtle, and unanimously agreed to: 1. That the College have had before them, and have considered certain changes in the Vaccination (Scotland) Bill, which the Lord Advocate proposes to have introduced in committee in the House of Lords; and that they are of opinion that, while objections to the Bill still remain, these proposed alterations would remedy many of the defects under which the measure labours. 2. That the College observe with satisfaction that the title of public vaccinator is to be abolished, and that the duties of that official under the Bill, are to be restricted to the vaccination of paupers and recusants,—and in the latter case only when directed by written order of the Parochial Board; that the establishment of vaccination stations is not to be compulsory; that the *onus* of sending the certificate of vaccination is to be laid on parents and guardians, and not on the medical practitioner; that instead of proceeding against defaulters at once by fine or imprisonment, they are to be offered vaccination in the first instance; that the objectionable distinction between the certificates of the public vaccinators and registered practitioners, contained in clause 28 of the original Bill is to be abolished; and that the interpretation clause is to be so altered, as not to interfere with the Medical Act. 3. That the College regret, that the very inadequate remuneration given by the Bill to the vaccinators for performing the operation, and ascertaining and certifying as to its effects, is not to be increased. At the same time, they mark with satisfaction, that their duty is now all but limited to the vaccination of paupers; and that as the appointment will, in all probability, be in most cases conferred on the parochial surgeons, the fee, small as it is, will be an addition to their salary, and is equal to the fee allowed in England, and higher than that in Ireland for the same duty, and that it is, after all, only a minimum, which any Parochial Board, appreciating the value of duly paid labour, can increase. 4. That the College regret that the indirect compulsory clauses have not been restored to the Bill; they feel satisfied that, ere long, new legislation will be required, when they trust the legislature will form a more just estimate of the value of indirect compulsion as a means of securing the more general diffusion of the blessings of vaccination. 5. That the College regret that the Bill contains no provisions by which the migratory unvaccinated population immediately above pauperism, including those who labour in the making of railways, canals, and other public works, can be vaccinated; and desire to express their conviction that, while this is neglected, anything like general vaccination, as a check to small-pox, is unattainable. 6. That the College are of opinion that a move-

ment should immediately be made to obtain through the Privy Council, or otherwise, the means of securing an adequate supply of vaccine lymph for practitioners in the three divisions of the United Kingdom; failing which, all legislation must of necessity prove inoperative. 7. That the College record their thanks to Drs. Wood and Burt, who acted as their representatives both in London and Edinburgh, and by whom the negotiations, which have been so successfully concluded, were carried on. 8. That the College, having been given to understand by their representatives, Drs. Wood and Burt, that the condition on which the Lord Advocate has undertaken to effect the proposed alterations in the Bill, is, that the threatened opposition to the Bill in the House of Lords be withdrawn, and, that this be made known—order these resolutions to be published, and copies sent to each Representative Scottish Peer, and to such other persons as the Council may direct.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—JULY 25, 1863.

[From the Registrar-General's Report.]

	Births.		Deaths.	
During week.....	{ Boys.. 994	1892	1452	
	{ Girls.. 898			
Average of corresponding weeks 1853-62		1818	1253	
Barometer:				
Highest (Fri.) 29.944; lowest (Wed.) 29.441; mean, 29.699.				
Thermometer:				
Highest in sun—extremes (Mon.) 112 degs.; (Tu.) 70.3 degs.				
In shade—highest (Sun.) 74 degs.; lowest (Tu.) 44.1 degs.				
Mean—57.3 degrees; difference from mean of 43 yrs.—4.3 degs.				
Range—during week, 29.9 degrees; mean daily, 21.7 degrees.				
Mean humidity of air (saturation = 100), 78.				
Mean direction of wind, S.W.—Rain in inches, 0.88.				

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CHLOROFORM IN HOSPITALS: ACCIDENTS.—SIR: Your JOURNAL has advocated the publishing of all cases of chloroform accident, as they are most useful for further deductive or inductive reasoning on the subject. Two cases are in the newspapers of last month, not noticed in medical journals; and one case that is mentioned in the latter (that of the medical man at Carlisle) proves not to be a chloroform accident at all. The two real cases are, one at the Westminster Hospital—a male adult, for amputation of the finger; instant death by syncope; the other at King's College Hospital—an adult male, for another trivial operation, *fistula in ano*; death probably apnoea. Coroners' inquests were held in both cases. There were two at the London Hospital not long ago, and one at Guy's; but not one of all these five hospital cases has been systematically reported. This is a great pity. In Scotland and Ireland it is said to be the same; the cases are not published; and even the Committee of the Royal Medical and Chirurgical Society think the number of cases unimportant. But not so, as to facts or cases, thinks Dr. Hughes Bennett in his masterly collection of facts as to pneumonia, or the other men now receiving the schedules of the Association. The chloroform problem, however, is now nearly worked out. I am, etc.,
July 1863. CHARLES KIDD, M.D.

THERAPEUTICAL INQUIRY, No. IV: SCARLATINA.—Mr. Hodson has received Schedules from:—Edward Parker, Esq., Kirkdale Road, Liverpool; Charles Coates, M.D., Circus, Bath; J. Hughes Bennett, M.D., Edinburgh; Wm. Soper, Esq., Stockwell Road, Surrey; R. W. Watkins, Esq., Towcester; John K. Spender, Esq., Bath; W. M. Kelly, M.D., Taunton; Vincent Jackson, Esq., Wolverhampton.

THERAPEUTICAL INQUIRY, No. V: JAUNDICE.—Dr. Harley has received Schedules from the following gentlemen:—Dr. Handfield Jones, London; Dr. Hughes Bennett, Edinburgh; Dr. Charles Coates, Bath; Dr. Charles B. Bree, Colchester; Dr. Patrick Fraser, London; Charles J. Evans, Esq., Hull; Paul Belcher, Esq., Burton-on-Trent; Dr. Thomas Skinner, Liverpool.

LONGEVITY.—Sir: Perhaps you may agree with me in thinking that the subjoined statement is worthy of being regarded as a contribution to the curiosities of life-assurance experience. This day the Board of the Volunteer Service and General Assurance Association accepted a proposal from Glasgow on the life of a gentleman, who states that his grandfather died aged 125, and his grandmother aged 100. He also states that his father and mother are both 70 years of age and in good health.

I am, etc.,

JOHN ROSE COBURN, F.R.S.E.,

Manager and Secretary.

Volunteer and General Assurance Association, 8, St. Martin's Place, W.C., July 22nd, 1863.

COMMUNICATIONS have been received from:—Mr. THOMAS O'CONNOR; Dr. HARLEY; Dr. FRASER; Dr. RANSOM; Mr. HENRY LEE; Dr. MACROBIE; Dr. RANKING; Dr. KIDD; Mr. JONATHAN HUTCHINSON; Dr. W. B. HERAPATH; Dr. BREE; Mr. AUGUSTIN PRICHARD; Mr. GRAMSHAW; Dr. W. FOSTER; Mr. T. MARTIN; Mr. T. M. STONE; Dr. W. P. STIFF; Dr. GOOLDEN; Dr. STYRAP; and Dr. G. A. HUMBLE.

BOOKS RECEIVED.

1. The Diseases, Injuries, and Malformations of the Rectum and Anus. By T. J. Ashton. Fourth Edition. London: 1863.
2. A Manual of Ophthalmoscopic Surgery. By Jabez Hogg. Third Edition. London: 1863.
3. Third Annual Report of the Belfast District Hospital for the Insane Poor. Belfast: 1863.
4. The Discovery of the Physiological Method of Inducing Respiration in Cases of Apparent Death. By Henry R. Silvester, B.A., M.D. Third Edition. London: 1863.
5. Report of Clinical Cases treated in the Surgical Wards of the Royal Infirmary, under the care of Mr. Spence. By F. Steell, M.D. Edinburgh: 1863.
6. On the Discovery of Thallium. By W. Crookes, F.R.S. London: 1863.
7. Anatomical and Physiological Observations. By John Struthers, M.D. Edinburgh: 1863.
8. On Artificial Dilatation of the Os Uteri, etc. By H. Storer, M.D. Boston: 1863.

ADVERTISEMENTS.

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Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

THE

PRESIDENT'S ADDRESS.

BY

JOHN A. SYMONDS, M.D., F.R.C.P., F.R.S.Ed.,

CONSULTING-PHYSICIAN TO THE BRISTOL GENERAL
HOSPITAL.

THERE are two kinds of common place: one which consists in repeating a sentiment which has been frequently expressed before; the other, in saying something which, though it may not have been said before, has been in every one's mind, and indeed has to every one seemed to be so obvious as not to need communication. To the latter head you cannot fail to refer the remark which I am now about to make, and which I cannot avoid making, namely, that the present meeting of the British Medical Association is held under what may be called trying circumstances; trying to the stout hearts, trying to the *amour propre* of this locality; for it is the first meeting held in the provinces since the metropolitan meeting. The events of that meeting are too fresh in the recollection of those who partook of its splendour and its enjoyments, and too well known by testimony to those who like myself were so unfortunate as to have been absent from it, for me to think of telling how it was attended, how it was conducted, and how it was presided over; nor will I uselessly spend time in deprecating a comparison of that meeting with what we are now inaugurating. We trust to your clemency and generosity; and, as the temporary representative of the profession in this place, I humbly beg to offer the Association a hearty welcome to our ancient city and neighbourhood.

The distinguished founder of this Association is reported to have said last year in London, when the proposal was made that the next meeting should take place in Bristol, that he entertained a very favourable recollection of a former meeting in this city. I shall be content, and my fellow members in this district will be content, if this second visit of the Association shall be considered as agreeable to the body generally as was the former. Of this happy result I should despair, were I to think only of the terrible gaps which Time has made in our ranks since then. Thirty years, one of the fleeting generations of men, have passed away since that time. But it is not with a public association as with a private circle of friends. In the latter case there is nothing to be done but to close up the vacant spaces, draw nearer together, and, with the scattered remnant of our company, do battle as best we may against Time and Fate. But it is not so with a public body, which has no essential and inevitable mortality. It has the vital principle of royalty—"the king is dead—long live the king!" Or, in a better comparison, we might say that it has the

vitality of organic structures. If its nutrition be healthy, as fast as one set of molecules die away others take their places, and fulfil their functions. Three decades of years are gone since the former meeting of the Association in this city; and these three decades, which witnessed the passing away of so many who brought honour to our profession, witnessed also the production of discoveries and writings, the influence of which must last as long as the science and art of medicine endure. Of the truth of this remark, ample proofs might be culled from those annual retrospects, the origination of which is due to this Association; and, perhaps, it has been not the least important part of the work which the Association has incited. I have not time to particularise, but if any one wished to mark the progress made during this period of history, it would be enough to take up systematic treatises on pathology and medicine published before 1833, and to compare them with those at present in the hands of students. To pass from Alison, Elliotson, and Andral, to Williams, Watson, Paget, and Virchow, would be to pass over a space filled with an immense accumulation of new researches and valuable discoveries.

When this Association met in 1833, Marshall Hall had not undertaken, or at least had not made known to the world, those experimental inquiries which, whatever controversies they begot as to the absolute originality of his views, yet gave a new impulse and a new character to the whole science of neurology. At that time the anatomy of tissues was only such as Andral, and Béclard, and Meckel had left it, that is, at the utmost limit to which the dissection of that time could advance it; for then the microscope had not been brought in to aid the scalpel. The names now so familiar to us, of Vogel, Hasse, Bowman, Henle, Kölliker, were then unknown. At that time the blood as a seat of disease was only adverted to in a faint whisper of suspicion. But no minute researches had been made as to the relative proportions of fibrin, globules, and albumen in various diseases; much less had the microscope been employed in aiding the analysis. The cellular theory of the growth of vegetable and animal structures had not then been broached; and the names of Schleiden and Schwann had not reached this country; nor, indeed, were their observations promulgated in Germany till long after the date we are looking at.

Dr. Bright's great discovery had not attracted general attention, though his *Medical Reports* appeared in 1827. I find no allusion to it in the earliest annals of this Association. It was not till a few years afterwards that albuminuria became a prominent object to pathological inquirers, though we now regard it as not only momentous in itself, but also as having given a great impulse to our modern humoral pathology. It was long after that time that our improved methods of treating phthisis began; uterine pathology was in its infancy; and, however much those who have practised new methods of treatment in the pelvic diseases of women may have been carried away by their sanguine expectations, it must, on a calm and candid review of the subject, be allowed that great improvements have been made since the time when chronic disorders of the female organs were mostly included under scirrhus, fibrous tumour, uterine neuralgia, leucorrhœa, etc. Surgery, especially conservative surgery, can number great achievements that had been previously undreamed of. And there has been one therapeutical movement which did not begin till long after the epoch we are considering, I mean the use of anæsthetics by inhalation. Were there no other discovery to stand out on the medical annals of the last thirty years than the anodyne use of ether and chloroform, it would be enough to make the whole suffering world,

through unborn generations, look back to the intervening era with admiration and gratitude.

I do not profess to take even the most superficial glance at the history of our science and art: I have only alluded to it as prefatory to a question which may, perhaps, be a suitable theme for our consideration at the present time. A review of the progress of medicine, and an impartial estimate of the facts which it surveyed, would be sufficient, one would imagine, to render this question nugatory: How has the art of medicine advanced in the opinion of the public? Surely enough must be known by persons beyond the pale of the profession as to the researches to which powerful and industrious minds have been devoted; enough must be known to increase the confidence of the public in the art which is the ultimate object of those researches. But we will not now consider how the public mind ought reasonably to regard the progress of medicine, but let us ask, What is the fact? How is it regarded?

In all times there have been a large proportion of the public who have traditionally adhered to medicine, though they have not escaped the risk of being occasionally carried away by some quackery of the hour. And the relation of this part of the public has remained much the same, except that occasional secessions from it have been made on a larger scale during the time we have been contemplating than at any previous period; the causes of which I need not inquire into. On the other hand, a portion of the public have at all times entertained a certain amount of distrust of the resources of medicine. And from the satirists and epigrammists of various times might be gathered a curious collection of opinions, by no means complimentary to medical practitioners. There is much of contingent matter in our science and art by the very necessity of things, and the gross results are what men judge by. They do not know the processes; they cannot measure the difficulties, but they can estimate a success or a failure. Lord Bacon says: "Almost all other arts and sciences are judged by acts or masterpieces, as I may term them, and not by the successes and events. The lawyer is judged by the virtue of his pleading, and not by the issue of the cause. The master of the ship is judged by directing his course aright, and not by the fortune of the voyage. But the physician, and perhaps the politician, hath no particular acts demonstrative of his ability, but is judged most by the event; which is ever but as it is taken; for who can tell, if a patient die or recover, or if a state be preserved or ruined, whether it be art or accident? And therefore many times the impostor is prized, and the man of virtue taxed. Nay, we see the weakness and credulity of men is such, as they will often prefer a mountebank or witch before a learned physician." (*Advancement of Learning.*)

It is not surprising then, that, according as a happy or an unsuccessful issue has chanced to impress the minds of men, our profession has become the subject of extravagant eulogy, or of abuse and derision; for the feelings of the observers are by the very nature of the case highly excited on the subject, and to a degree that both warps their judgment and gives emphasis to their expressions. There are on the one side surprise, and delight, and thankfulness at life saved or anguish soothed; and on the other side disappointment, grief, despair, when a life is unexpectedly extinguished, or when pain goes on baffling every effort made to quell it. Such contrasts of feelings in different persons, or alternations of them in the same person, must naturally belong more or less to the public.

But, while one can understand and make the utmost allowance for the disappointment often felt by those who have sought the help of medical art, one might

expect, if they know anything of the amount of study and labour which has been bestowed upon medical science, and if they consider how the individual practitioner whom they consult has made it the main business of his life, one might expect them to say to themselves: "Well, whatever may be the shortcomings of medicine, it is plain that well-informed practitioners must, at all events, know far more of the matter than we do. If they know but little, we know less; if they can give us but little help, whence can we get more?"

And this, indeed, does represent the feelings of a large number of persons; but with others there is an under-current of doubt and distrust, even when they yield a sort of external confidence to medicine. And of this scepticism, were it of an enlightened, inquiring form, we ought by no means to complain. It is obvious that a great deal of it within the last quarter of a century has been caused by the extensive circulation of works, which have made it a special object to infuse doubt and dissatisfaction into the public mind as to the claims of medical science and art, as hitherto taught and practised, and to favour the introduction of new methods and systems. But over and above this, there are other causes which, though individually slight, have by their cooperation done a great deal towards unsettling general faith. Such are the seeming success that has resulted in certain cases from the abandonment of medical treatment, and trusting entirely to unassisted nature; the apparent benefit derived from methods of treatment disapproved by regular practitioners; the seeming success with which patients sometimes take the law into their own hands; the prosperous results ensuing on the seditious and treasonable advice of their friends, in contravention of the authority and injunction of the medical adviser; the conflicting opinions and directions of practitioners themselves, not merely as one man differs from another in drawing practical corollaries from the same established truths, or in applying them in individual cases, but as to the whole system and process of cure, as, for instance, whether reduction or support should be the ruling object; the absurd prevalence of fashions of treatment among the faculty, so that the same methods and remedies seem to be applied to a vast variety of seemingly dissimilar disorders; the unwise and rash admissions of eminent men as to some certainty and inefficacy of medical science and art, admissions which may be fittingly and honestly called unwise and rash, because the qualifications are not appended or cannot be understood; such admissions, torn, as it were, from their context, being easily garbled and turned to mischievous purpose against the real interests of mankind, as well as of the medical profession. Upon each of these heads we might expatiate at some length did time allow us; but I cannot doubt that they severally and conjointly operate in lessening the confidence which is due to medicine.

The scepticism of educated men out of our profession may be somewhat judged of by an extract from an article in the *Saturday Review* for Oct. 11, 1862, on "Physiology and Medicine;" also from one in the *London Review* for Jan. 24, 1863, entitled "Doctors."

"It has been a convenient doctrine to set down the success of dissenting medicine to the general want of scientific instruction, and to an ignorant impatience of disease among the unreasonable mass of mankind, prompting them to have recourse to whatever irregular short cut might be offered for escape from bodily suffering. But in this, as in some other matters, men in general are not such fools as wise professors think them. Cold water and hot air, nay, even such coarse specifics as those of Morrison and Holloway, have not recruited their votaries exclusively amongst the ignorant and the credulous. The plain truth is, that people

have followed quacks because they have not found in the doctrines or the practice of the regular profession reasonable ground for confidence. Even those who knew nothing of the numerous revolutions that have over and over again upset the prevailing doctrines as to the nature of disease and remedial action, have seen that there could be little certainty about a system which changes all its outward practices every ten or twenty years. If bleeding, calomel, starving, stimulants, warm rooms, open windows, have each been tried in turn, and, as it seems, without any marked advantage one over the other in effecting cures, it was not surprising that sceptics should doubt the inspiration of the oracle whose utterances were found to be so changing. Those who examined further, and discovered that the doctrines which were successively invoked to authorise each new system of treatment rested on arbitrary assumptions, not demonstrated, nor, for the most part, capable of demonstration, began to suspect, for the most part, that the difference between regular medicine and quackery was not so profound as they had been used to believe. Both appeared to be in the dark as to first principles, and to appeal for support to empirical evidence. After analysing all that medical science could say in the great majority of cases of disease, the only reason to be given why you should swallow a given drug was the fact that many others, who seemed to be affected in a way similar to yourself, had taken the same drug and had survived the dose. The doctor, often uncertain of the nature of your disease, was quite ignorant of the cause of it. He had no evidence as to the action of his drug, or even whether it acted at all upon the cause of disease; and lastly, he had no certainty that the drug would affect you in the same manner as others who had taken it. The very utmost he could urge was a belief, more or less probable, that the same drug had been serviceable in cases presumed to be similar. Was there any essential difference between his process of reasoning and that of the honest quack, who, by a nearly similar process, had worked himself into a belief in the virtues of a specific?"

The writer in the *London Review* asks:—"But can any one at this moment seriously declare that there is such a thing as a science of medicine? What there is is this. There are a few facts—a very few—distinctly known, and beyond the reach of controversy; and the number of them increases but slowly, if it increases sensibly at all. There is a pharmacopoeia of drugs, about the use of which no three men agree completely, and about which, whatever agreement there is, is derived from simple empiricism. There is a vast amount of chemical research, which appears to bring more physiological difficulties to light than it serves to explain, and passes by a number of organic laws to which it is powerless to afford the slightest clue. It may be urged that all true science is founded on empiricism. So it is; but does any true science end with it? Can the doctors point to any one new law of their profession which they have laid down from the consideration of general principles, whether those general principles have been derived from practice or not?"

I cannot forbear adding another short quotation from the same article, because of the compliment offered to my surgical brethren. After remarking on the rapid progress of the science of farming, the writer is so good as to say,—"The practice of surgery has made great steps in a still shorter period, and has discovered in chloroform a source of blessing to the human race, which will compare with any since the invention of steam. The legitimate gratitude of mankind is attested by the fact that there is not a single novel or drama of modern times in which a practising surgeon plays the part of a fool."

I quote from these journals, not because they have any special authority in relation to the subjects which we are considering, but because from the well known ability and learning of their conductors and contributors, they may be held to represent the higher culture of our people. It will have been noticed that these adverse criticisms on medicine include two principal charges:—1st. That it is not a true science; and 2nd. That the practice consists of mere empirical processes, that is, processes that have been ascertained, or only thought, to be useful in the cure of diseases, but which have not been founded on any real knowledge of the mode in which they act beneficially.

Now, What is strictly a science? Is it not an account of phenomena, representing accurately their arrangement in space, and their order in time;—an account which classifies them as occurring in certain groups to which names have been affixed, names that, to persons duly instructed, recall the collection of facts;—an account which, from a great multitude of complex qualities and events, selects and gives prominence to those which are essential to the collection as distinguished from the accidental, and which discriminates, out of successive phenomena, those which are only occasionally, from those which are invariably, antecedent; an account which enables an observer to read the past and the future in the present, that is, to tell what must have preceded the phenomena under observation, and to state certainties, or high probabilities, as to the future; an account which enables an observer, from facts presented to his senses or reported to him as the subjective sensations of others, to say what changes have occurred or are going on in processes beyond the reach of direct perception? Now, if such an account of phenomena be not entitled to the designation of a science, I do not know what is. Yet such is medicine; and there is not one of my hearers, I will venture to say, who will not be ready to own from his own knowledge, often tested, often leaned upon in great crises, that the description I have so briefly sketched rather understates than overestimates that scientific observation and registration of phenomena on which our pathology is constructed, and which guides us in our recognition of the causes of diseases, and our expectations as to their course and issue.

To the other allegation, that medicine, as an art, is merely empirical, it is a sufficient answer that the art is, for the most part, founded on and directed by the science to which I have adverted. To say that it is a mere bundle of traditions, shows so profound an ignorance that it must excite extreme wonder in the mind of anyone who has even only the most superficial acquaintance with therapeutics. One is at a loss to account for the origin of so strange a delusion in the minds of these disparagers of medical art. One source however may, perhaps, be traced to the misrepresentations which are unhappily to be found in writings where one would have least expected them. I regret to confess that there have been writers on our art, who, in their anxiety to impress what they consider some all-important principle of treatment, and which has an exaggerated importance in their eyes, either because it has something of novelty or because they have taken a distinguished part in its recognition or recommendation, speak of other principles as valueless, or hypothetical, or erroneous. Other writers again, who, from practical inaptitude, have incurred much disappointment in the exercise of medical art, have, instead of recognising the real cause of their failures, been ready to fancy that the art itself is of little worth, and that the sick might as well be left to the natural tendencies to cure. All periods of medical history might furnish specimens of this kind of detractors; men driven by disappoint-

ment into disaffection, and whose treasonable words have been caught up by some of the unthinking or malicious multitude.

If a teacher of medicine really wishes the public to be rightly informed as to the character of medical art, he should endeavour to set forth the fact, which all my hearers will admit to be true, that the difference between the scientific physician and the empiric consists in this, that the former does not rest his art on arbitrary assumptions, nor on the mere observation of specific remedies. The rational physician endeavours to learn first of all the order of events in the healthy organ and its functions, the nature and causes of the disturbance of this order in which disease consists, and then the events which precede the return to a healthy state; and from these various sources of information, together with a knowledge, which has been acquired in various ways, of agents which influence the natural actions of the living body, he endeavours to help or hasten the processes which repair, and to restrain those which are hurtful.

Surely that kind of knowledge deserves to be characterised as scientific, which enables a physician to determine, from a combination of direct and inferential signs, that there is a collection of fluid in one pleura, and so unhesitatingly that he requests the surgeon to plunge a trocar into the chest; or which pronounces that a seemingly mechanical closure of the larynx is caused by the pressure of a tumour within the chest, exerted on a nerve which animates the muscular fibres at the opening of the glottis; or which can declare one case of paralysis to be caused by a clot of blood in the right or left *corpus striatum*, and another to be caused by disorganisation of a portion of the spinal cord. I mention these instances as some of the least uncommon.

If this be not scientific medicine, it would be difficult to say what could be so called. Obviously there is much yet to be learned. But I suppose that this remark may be applied to every science and art. Ours is not the only science which has attained to more proximate than ultimate principles. It may be true, for instance, that as to the operation of medicines we only know that one increases or arrests certain actions in the intestines, another in the kidneys, another in the brain, another in the heart, another in the lungs, another in the uterus; and that we do not know why substances which reach the organs through the blood, should exert a preferential action on one organ rather than on another. Jalap may have an elective affinity for the intestine, opium for the whole encephalon, aconite for the sensory ganglia, strychnine for the spinal cord, ergot of rye for the uterus; and this may be all that we can at present say of these well known relations. But when the chemist announces that sulphuric acid prefers potass to magnesia, and that silver prefers chlorine to nitric acid, etc., is he twitted with the limitation of his knowledge, and put into the same category with the empirical alchemist, because he cannot explain the cause of those elective affinities?

There is no more prevalent mistake, as to the practice of medicine, than the idea alluded to in one of the extracts which I have read to you; namely, that our art consists chiefly in a blind administration of specifics. Now, you know very well that in an enormous majority of instances drugs are given in order to produce some well known physiological effect, that is, a change in degree or kind of some function or functions, which change has been known, when effected in other cases, to abate or remove the disordered state of functions of which the patient is the subject. Belladonna is prescribed to a person in a paroxysm of asthma, not because it is a specific for that disorder, but because it is known to diminish muscular con-

traction, the excess of which in the fibres of the bronchial tubes makes the spasm of asthma. Elaterium is administered to an ascitic patient, not because some one suffering like disease has been better after taking it, but because that substance drains a large quantity of serum from the mucous surface of the intestines; both reason and experience having proved, in numberless instances, that dropsical collections disappear by absorption after the action of powerful hydragogues, just as effusions in the pleura disappear after blisters.

The professors of rational medicine may differ in their explanations of phenomena so complex, intricate, and changeable as those of disease; and they may have marked preferences for various instruments and methods of cure; and they may often change their opinions under the influence of new observations and discoveries. The growing disposition among the more enlightened may be to withhold the more violent procedures, those which interfere most artificially with natural processes, and to study with more and more care the natural tendencies to cure, and the natural tendencies to dissolution, and to make it the aim of their art to play off the conservative against the destructive tendencies. And in doing this they may, as I have said, differ greatly in their procedures; and some of their measures may be taken up and laid aside, and taken up again with various degrees of favour, owing, as I believe, not so much to the fluctuations of medical opinion, as to the variations of the subject matter; that is, the changing character of diseases, the changing constitutions of men, operated upon by the changing series of meteorological agencies, of social customs, and of personal habits.

Is it not unreasonable, not to say ungenerous, to fasten on the professor of medical art a reproach that belongs less or more to all human arts? Are mistakes and uncertainties confined to medicine? Can constant and unerring procedures be claimed for, I will not say agriculture, horticulture, and the breeding of animals, for these, like medicine, have to do with organic nature; but for arts which profess to be founded on calculations of the invariable relations of measure and number, on rigid observation of invariable antecedents and consequents? Are engineers never out in their calculations—never beaten in their undertakings? Do their tunnels never fall in? Are their railways never undermined by springs, or swept away by tides? Have their ships never proved all but incapable of launching, from having been built upon a mistake as to the proportionate antagonism of friction and gravitation? Are they agreed as to their methods? They do not seem to be able to decide even the best form of a gun-barrel. Yet, they have only brute matter to deal with—matter, ponderable and measurable—with quantitative proportions known and acted upon, and machines that may be stopped and set to work at will. They have not to discover and rectify faults in machinery while still in motion; no perplexities are thrown into their problems by such incalculable agencies as nerve-force, vital chemistry, cell-growth, and the ever-shifting phenomena of human individuality, the uncertainties of human sensibility, the perturbations of emotion and passion, the caprices of humour and temper, the fickle purpose, the wavering will, and all those contrarieties of man's constitution which make him ever the same, and yet not the same, and which, operative enough as they are in health, become a hundredfold more prominent in disease and more embarrassing, because they must be excused, and often can neither be reproved nor reasoned with.

I confess that I do not see how the art of medicine can ever take its right place in public estimation, till the public mind has acquired the requisite knowledge

and the requisite cultivation of its reasoning powers to judge of it, for both of these are really needed. Knowledge alone will not suffice; for, if it could, we should be at a loss to account for cases which occur every now and then, in which men who have undergone a certain amount of medical training, and are possessed of an average amount of medical knowledge, have not only declared their disbelief in medical science, as taught in our schools, but have espoused some of the foolish theories and practices which have been set up against it. Such persons illustrate the uselessness or even mischievousness of knowledge, unless regulated by logic, and, I may add, by common sense. But on the other hand, mere logic and common sense will not be sufficient without the data on which they should work. It is simply want of knowledge, which explains the disparaging terms in which our art is sometimes spoken of, as we have seen, by men of high intellectual culture. We must also admit that the respect which it receives from the majority of well-educated persons is due, not so much to actual knowledge, as to conventional acquiescence in the claims of a learned profession, and to the presumption that able, vigorous, and conscientious minds cannot have given their best thoughts and hardest labour to the elucidation of a certain class of natural phenomena, without having arrived at some definite truths and some sound principles of action. For, in judging of medical theories and medical practice, it is ever to be borne in mind that, with a very few exceptions, they have not been devised and inculcated by men withdrawn from the outward world, and absorbed in dreamy abstract meditation. They are not the excoitations of the solitary recluse who sits in his cell, painfully weaving the web of thought from his own interior, "toiling out his own cocoon." But whatever their real worth may be, they are at least founded on a long and patient observation of nature. Therefore, a candid and intelligent bystander may reasonably admit that such study cannot be profitless. Let a human mind, moderately well prepared, be set in front of the aspects and processes of nature, steadily enough and long enough, and it cannot but receive an impression more or less faithfully representing the facts. There must be an image on the mind; but, as in the work of the photographer, the definiteness of the delineation, and the exactness of the shading, will depend on the care and skill with which the plate has been prepared and handled. If the able and intelligent men, who sometimes speak slightly of medical science, would but consider that there *must* be a nexus between the different parts of nature; that there is a necessary pre-established correlation between the phenomenal world and the perceptive and reflective powers of man, they could scarcely fail to see that it is an absurdity, and almost a blasphemy against the constitution of the universe, to maintain that some of the grandest and finest minds God ever made, had, over long series of years, been engaged in laborious contemplation, and study, and experimental inquisition of those facts which we call disease, and morbid agents and remedies, and that their honest endeavours had been vain and profitless. It would be tantamount to saying that man, who was born to live by the sweat of his brow, might plough, and harrow, and sow, in a kindly soil, and that, as the result of his labours, there would be nothing to reap but tares and thistles.

As to the unthinking public and the airy satirists, we can afford to consent to excuse the one, and to smile at the other; but from the serious and well-instructed members of the community, we expect a more reasonable consideration of this subject.

Now, if we desired to enable those who are outside of the profession to form an estimate of the amount and the

kind of labour performed and endured by our brethren, we should not, for the immediate purpose in view, take them to those spheres of arduous exertion, where men are engaged in the duties of practitioners. But to judge whether the professors, and teachers, and learners of medical science and art put themselves in the way of acquiring such knowledge as may best fit them for the fulfilment of the ends of their profession, I should desire to take the inquirer first into our medical schools, and point out the pains taken in teaching and learning the grammar of the art in the work of the dissecting room, the laboratory, and the museum. I would then advise him to resort to the lecture-rooms, and hear how patiently, and often eloquently, the results of hard scientific investigations and profound reasoning are expounded; and then to the hospital clinique, where the actual sensible facts of morbid nature are at once presented, explained, tracked, and commented upon for the instruction of students. Then I would take him to the private studios, where experimental philosophers are extorting the secrets of nature from nature's own works, by the scalpel, the test-tube, the balance, and the microscope; often labouring, month after month, year after year, baffled but not beaten, still toiling on, and even when partially successful, waiting till results have been obtained so sure and unquestionable as to warrant them in undertaking the responsibility of promulgating their observations and conclusions. And then I would have him attend the meetings at which those results are announced, and watch the eager and joyful welcome with which a real addition to our stock of truths, to our practical resources, is hailed, and what jealousy and distrust attend hasty conclusions and questionable inventions. And finally, I would persuade him to spend a few days in our libraries and reading-rooms, and point out to him the shelves containing Transactions of Societies, Reports of Hospitals, and Annual Retrospects, and tell him, that there he may find some satisfactory evidence of the amount of intelligence, research, and conscientious endeavour expended in building the art of medicine on firm scientific foundations.

He will thus find proof enough that the rules of the inductive philosophy have been followed, whether or not they have ended in that which its great regenerator announced as one of its chief aims, "the relief of man's estate." He will find that the facts have at least been drawn from nature, however they may have been arranged; and that our science does not derive its inspiration from one or two *dicta*, which are not philosophic truths, but merely strong and rather coarse antithetical expressions of some aspects under which certain phenomena may be viewed; and that it does not seek to curry favour with the uninformed by telling them that they are competent without study to judge of its merits. Its teaching appeals for appreciation to those who are engaged in like pursuits, and who are the only qualified judges of the worth of such labours.

Should our supposed inquirer take the trouble of doing what we have suggested, we can fancy that he might say: "Now that I see on how rational a basis your art is founded; now that I am impressed with the thorough going exertion devoted to the study of that wonderful piece of workmanship which you profess to repair and keep in order; now that I see with what skill you have unravelled the texture of the organs even to their ultimate molecules, fixed the functions and modes of working of the organs, and are learning more and more every day of the composition of the blood and of that vital chemistry that governs its relations at once to the tissues which it feeds and to the forces which it evolves; now that I know something of the researches into the operation of those ex-

ternal agents which are ever drawing organisms into life, maintaining their health, driving them into disease, and working their disintegration and death, whether by slowly sapping processes or by specific malignity, or by help of the mysterious influences whereby epidemics even yet overcome or evade you; now that I can take some slight measure of the vast stock of observations on the actual changes which disease makes in the structures, and on the order of the phenomena in dynamical interruptions and aberrations; some notion of what has been done by sagacious insight and toilsome comparison towards recognising during life those perilous processes which in other cases have left the ruin and ravage which your necroscopy has so painfully traced and so accurately recorded; now that I know how rigidly, nay sceptically, you have tested the worth of alleged specifics, or general remedies, or methods of cure; now that I have some faint idea of what your science has done and what it still aspires to do, I marvel that it does not command universal respect and confidence—not the superstitious reverence which is given to an authority the limits of which are lost in a cloud of mystery, but the intelligent deference which may be reasonably yielded to superior knowledge and superior resources.”

Now here we have to repress the enthusiasm of the imaginary inquirer, excited as he is by his recent studies and acquirements. He must be reminded that the information of which he has just become possessed, is precisely of that kind which the public generally cannot acquire. We only wish, and it is not an unreasonable wish, that literary gentlemen who address the public upon medicine in journals which, from the ability with which they are conducted, naturally and deservedly carry a great weight of authority, would prepare themselves for this particular work by a little study of the subject. It is not fair to content themselves with a hasty glance at books so rash, however honest in intention, as Sir John Forbes's "*Nature and Art in the Cure of Disease*," or so one-sided as a recent "*History of Medicine*;" much less to allow themselves to be influenced by the disparaging statements of writers who are trying to devise new systems in replacement of what they persuade themselves have become old and effete. These dreamers build their airy castles on ruins no less airy and fanciful. The buildings which they mistake for ruins are really substantial and impregnable fortresses.

But while we maintain that there is a solid scientific foundation for medicine, we do not wish to ignore the difficulties of the art—difficulties depending on the exceeding complexity of the phenomena to be dealt with. So great is this complexity, that nothing surprises me more than that enlightened physicians should sometimes attempt an extreme simplicity in their aims. Good Heavens! Does the working of the human machinery turn upon one or two springs or wheels, which are all that are to be handled? The great variety of chemical elements in the solids and liquids; the diversity of the organs and their component textures; the separate and peculiar endowment of the different parts; the high probability that many a nervous fibril which at present looks homogeneous or identical in structure with other fibrils, has its own peculiar life and function; these and many like considerations should warn us against attempting a simplicity for which Nature gives us neither pattern nor warrant. Had she only one or two forces or principles of action in the body, we might be content to pursue methods only eliminative, evacuating, or revulsive, or stimulative, or restorative, or sedative; but as it is not so, we will pursue all of these and more, if we can find them, and we will not disdain to use specifics if we light on them, though we should prefer to know the rationale of their operation.

Of the difficulties of the art, there is one which will always present itself even to the most highly educated practitioners; namely, the individual personality. They may be masters of the genus and species *homo*; they may be learned in all his varieties, his races, his variations with climate, and land, and province, and town; his modification by civilisation, by birth, by breeding, by intellectual occupation, by trade and calling, by wealth and poverty, by labour and leisure; but they have still to recognise the individual man. There he is with his own physiognomy and make and build, the set of his head, the squaring of his shoulders, the curve of his back, the planting of his foot. He walks to the consultation-table, he turns round in his bed, he puts out his tongue like no one else. He is John or he is Thomas; and he is no other. And his inward man is no less his own and of no other. His heart and his lungs and his liver, in the infinite variety of nature, are his own no less than his face. He may behave under the most common disease as no one else does; and the most ordinary remedies may affect him in a peculiar manner. He may have the apex of one lung just touched with tubercles, and he may die in three months. Or one lung may be full of them, and the other half-full, and he may live three years or more. He may be kept awake by opium, and sent to sleep by coffee, and so on. But here, as in so much else that belongs to Medicine, it is but too easy to make overstatements. The differences of individuality must not be exaggerated; or we may have to infer that every son of Adam requires an Art of Medicine altogether for himself—for his own peculiar use. If the similarity between men and men, and between their relations to other existences, did not prevail enormously over the differences, there could be no general rules to guide the conduct of man towards his fellows. Men could not be fed or trained, or taught, or governed, or healed. It is enough to bear in mind, that there is so much of individuality as must constitute one of those difficulties of the Art, which those beyond the pale of the profession can very inadequately appreciate.

But nothing more strongly denotes the sagacity of the practitioner, than the quickness with which he apprehends and measures the special requirements of the individual man by help of what he observes, and by what he is told of his patient. Of like value is the tact which enables him to decide that, although of two kinds of treatment in a certain disease one had been successful in eight cases out of ten and the other in only two out of ten, yet in the case before him the second method is to be preferred. Such qualities, together with promptness in determining whether to quiet or lower, or to rouse and sustain; a wise boldness in setting aside the consideration of the particular pathological change for a time, and concentrating the whole attention on the patient—these are gifts and acquirements that no mere learning or science can impart. They belong to mother-wit or common sense, and they make the common ground on which the skilful practitioner, and the clever nurse, and the intelligent wife or mother, may meet and work together for the salvation of the patient. It is the want of such qualifications that often deprives the practitioner of the authority and influence that otherwise might be accorded to his learning.

It is, I once more repeat, more in the practice of the art that medicine is judged of, than in the science which is its rational basis. And till something of the latter has been learned by the public, so that the difficulties of the art may be comprehended, till then its occasional shortcomings will sometimes shake the allegiance which is its due, and render some part of the public ready to transfer their trust to systems of arrogant pretensions and of seeming occasional success.

But in the progress of mankind we may be certain

that rational medicine will maintain its supremacy. It is impossible that it should be otherwise. The road which it takes is the right one, and the science must win nearer and nearer to its goal. If Nature is to be made our servant, we must understand her operations. If we wish to employ her powers under new conditions, we must thoroughly know their nature and their extent. The time may seem short in proportion to what has to be learned; but the time is not to be measured by individual lives nor even by generations. The poet may complain that

"Science moves but slowly, slowly, creeping on from point to point"; but still it does move, and it not only moves, but it moves securely and without fear of retrogression. How securely, no one need doubt or be ignorant, who heard or read those masterly expositions at once of its progress and its principles which were delivered before this Association last year; and like proofs will, I doubt not, abound in the addresses which have been promised for the meetings which are before us.

These remarks, as you will have noticed, have reference mainly to what there is of speculative scepticism afloat as to the true character of medicine. I need not remind you, on the other hand, of the abundant practical evidences which are presented to us of the public trust in our art. I need not allude to the proofs which meet the busy practitioner in every step of his daily rounds, and in the invasion of his night rest, and which throng in his consultation-room. He might say much of the touching, often painfully touching trust reposed in his skill. Nor is it worth while to dwell on the feelings of the public, as evinced in their anxiety to provide at great cost for their poorer brethren the advantage of medical help in Hospitals and Dispensaries; or on the confidence of the Government of the country, as expressed in their appointment of medical officers to the great public services. No naval or military expedition would move without its proper medical staff. And private enterprises are incomplete without a like equipment, from that of the passenger ship that crosses the ocean in a few days, to that of the travelling amateur who will not trust himself in deserts or even in remote cities without a medical companion. But there is one proof of a most solid and substantial kind as to the confidence placed in medical science, to which I must advert for a moment. It is often said as to political characters, that the statesman who carries the country with him is he on whose wisdom the moneyed class depend, the great authorities in Lombard Street and the Exchange. Now almost every day indications of the faith reposed by this class in medical science, are brought before us in the examinations which we have to make and in the reports to fill up for the security of the enormous wealth which is held by the Insurance Companies. Were medical science a mere collection of doubtful guesses, vague conjectures, traditional prejudices, and ever varying hypotheses, would all this wealth be staked on the opinions of medical referees, opinions founded on facts that have been elicited and even extorted from subjects who are often anxious to conceal them? But I need not pursue this subject.

Besides other titles to public estimation won by the profession, there is that which is due to the increasing amount of mental culture among our brethren, and which must inevitably lead to their gradual elevation in the social scale. At all periods in the history of our art, there have been men eminent at the same time for their professional skill and for their general learning. Dr. Freind thus speaks of some of the Greek physicians:—"If we compare any of the Greek writers in our faculty, from the very first of them—Hippocrates—to the time we are now speaking of, with the very best of their contemporaries of any art or profession whatever, they will be found not at

all inferior to them, either in the disposition of their matter, the clearness of their reasoning, or the propriety of their language. Some of them have even written above the standard of the age they lived in, an incontestable instance of which is Aretæus. * * * Galen himself was not only the best physician, but the best scholar and writer of his time: so great an honour have these authors done to their profession, by being versed in other arts and sciences as well as their own." (*History of Medicine*, vol. i, p. 220.)

It was not less so in later times. Jerome Cardan was so celebrated for his practical skill, that an archbishop of St. Andrew's sent for him from Padua; and, on his way, the Italian physician prescribed for our poor young king, Edward the Sixth. But he was not less renowned for his learning. He invented a system of arithmetic, and a system of algebra. He wrote treatises on the sphere, on circles, on Ptolemy's geography, and on Euclid's Elements; also on astrology, on chiromancy, on physiognomy, on fate, and on games of chance. Among his miscellaneous works we find mention of epigrams and poems, and of discourses on wisdom, on consolation, and on the immortality of souls. His professional writings were considerable, the chief being a *Commentary on Hippocrates*; also a work entitled *Contradicentia Medicorum*, and another, *De Malo Medendi Usu*. In the 17th century flourished Sir Thomas Browne, author of immortal works, which not only proved him to be master of all the science of his own and of past ages, but which now, after having been for a time partially forgotten, are placed on the same shelf with the best productions of English literature. And in the next century, Dr. Meade was not only the most eminent physician in London, but his name was dear to every one in Europe who cared for science, and learning, and the fine arts. But why should we go for instances beyond our own locality, when we can remember Dr. Prichard, who possessed an amount of knowledge and power that might have been divided amongst several persons, every one of whom would have been endowed sufficiently to attain to high renown in the several departments of science with which Prichard's name is indissolubly united? Ethnology, the science of language, psychology, and practical medicine, may all point to him as one of the illustrious dead.

If the present time does not present any instances of various learning, quite comparable to the names which have just been noticed (though we do not forget the elegant and erudite contributions to science and literature which we owe to the accomplished pen of Sir Henry Holland); still, if I do not mistake, there are in this day a far greater number, than at any previous period, of members of the profession fairly imbued with the science and learning of their time. And I think I may venture to add, that there is not now so much reason, as formerly, for fearing the disapproval of the public on this account. It is but too true, that once the general accomplishments of the medical practitioner were regarded with suspicion, as if that man could not be trusted in the exercise of his art who showed a capability of acquiring some knowledge of other subjects, and who made his recreations, and embellished his life, by the study of polite letters and fine arts. In those times he might mount his hunter, or sling his fowling-piece over his shoulder, or walk to the bedside in the attire of a sportsman; and he might spend his evenings in the theatre and the assembly-room, and his nights over whist and billiards; but were he known to be illustrating some obscure point in history, or even elucidating some matters of natural science removed from the duties of his professional routine, his reputation was in peril; but if he was suspected of an ode or a sonnet, the jeopardy was extreme! The members of the legal

profession were liable to the same suspicion of unfitness for their calling, if they occasionally refreshed their minds with science and literature. But happily we live in wiser and better times; and now I believe that those among the public whose approbation is worth having, are as ready to confide in a practitioner who shows mental capacity and mental training in matters of which they are competent to judge, as in one who has merely a character for cleverness in things about which they are unable to form a correct opinion.

At a first view it might seem that I have spent too much time in discoursing, before the members of a learned profession, on such a subject as the kind or degree of estimation in which that profession is held by the public. Our art being founded on the sure basis of a true science, it might seem more worthy of its dignity to be indifferent to the opinions of the uninitiated. Bent on the pursuit of truth, we should be deaf alike to applause and to disapproval. This might be, if the investigations were carried on only in the abstractions of the library, or in fields remote from the haunts of men. But the truths we seek are for the most part gathered where human beings are thickest, and with many of whom we are on terms of closest intimacy. The votary of medicine studies amidst the sanctities of hearths that are not his own; by bedsides, where husbands and wives, and parents and children, in the anguish of their pain or grief, are weighing every word he drops—are scrutinising the play of every feature in his countenance. His philosophy does not range the stars, or dive into the recesses of the earth's caverns; it walks in the trivial paths of daily life; its matter is the commonest experience of suffering men and women; its speculation is mingled with, nay, grows out of and ends in the daily duties of the calling by which he earns his bread—*Laborare est cogitare*.

If, then, we gather our science and reflect upon it, and turn it to its proper uses, in the midst of our intimate relations with our fellow-creatures, we cannot, by the constitution of our minds, or by the necessity of things, avoid taking account of the opinion which is held of the science we thus learn, and the art we thus practise. If it is of importance to us, it is equally so to those we have to deal with. Precepts will not be obeyed, unless their authors are respected. And that that respect should be entertained, I may say, without fear of contradiction, that every medical philosopher, every medical practitioner who deserves the name, would gladly see the mass of mankind studying in order to obtain some idea of the principles on which medicine proceeds, and of the methods by which she endeavours to accomplish her purposes. She throws open her studios and workshops, and invites the world to enter. To her mysteries no password is necessary. All who have the requisite knowledge may be free of her guild, and that knowledge may be acquired by all who choose to undergo the necessary labour.

We do not deny, that, over and above the love of science for its own sake; over and above the desire of seeing mankind profit by the discoveries and applications of medicine; over and above the anxiety to obtain independence, or even to succeed in the primitive objects of labouring life; over and above the simple wish to do our duty; over and above all these motives there is the aspiration for fame and glory, "that last infirmity of noble minds." A thirst for honour, fame, glory—or, if you prefer to call it, a simple love of approbation, is one of the strongest of the springs which give motion to the machinery of human life. It is an instinct implanted in man by his Maker. Like all his instincts, it is to be controlled by reason and to be directed to its legitimate ends; but still it belongs to the nature of man, and it is not to be ignored, much

less to be blamed or derided. All men who do great deeds are moved by it, though some avow the impulse more unreservedly than others; and I do not doubt that the sentiment smouldered with a strong heat even in the bosom of Wellington, though it did not flame out visibly as in Nelson and Napier. To suppress it is to do violence to our nature; to pretend to be above it is the hypocrisy alike of the arrogant self-sufficient stoic, and of the dull passionless ascetic. To say that it should be subordinate to and concurrent with duty, were a needless platitude. Happily, in our profession the two principles may work co-ordinately and harmoniously. And in the splendid roll of worthies which the annals of our art can display, we may observe with pride how inseparable was their glory from their duty, the one sustaining and animating the other. To them might be applied, as truly as to any of the heroes of war or civil fight, those thrilling words of the Laureate—

"Not once or twice in our fair island story
The path of duty was the way to glory;
He that ever following her commands,
On with toil of heart and knees and hands,
Through the long gorge to the far light has won
His path upward and prevailed,
Shall find the toppling crags of duty scaled,
Are close upon the shining table lands,
To which our God himself is moon and sun."

In the foregoing remarks, I have only thought it worth while to consider the public appreciation of medicine as a science and art. I have said nothing of the position which the profession takes in its moral aspects, and especially in regard to benevolence and charitable action. And nothing needs to be said. It may apply for its character to the public and to a higher tribunal. It may be said, and in all humility and reverence, that if at some time an account should have to be rendered of the callings to which men have devoted their talents and their exertions, though it may not be demanded what territories have been conquered, what foes subdued; nor by what intellectual mastery the forces of nature have been made subservient to the will of man, or what discoveries have been achieved in science, or what inventions in art; nor what beautiful forms have been fashioned, what glorious thoughts conceived, or in what harmonious words set forth; nor what polities have been founded, what laws laid down, with what energy enforced, or with what wisdom and eloquence expounded; nor what indisputable dogmas have been defined, or what casuistical difficulties resolved; but should it be asked, with terrible simplicity, what has your calling done for the afflicted sons of men, for the hungry, the naked, the sick, and the imprisoned?—then I do not think much fear need be entertained for the comparative sentence to be awarded to that calling which you and I have the privilege to follow.

I almost feel that some apology is necessary for having discoursed on such subjects before such an audience as that which I have the honour of addressing. But it seemed to me that, as the well-being of the profession, though depending mainly on its own internal constitution, organisation, and conduct, must derive a reflex influence from its relations with the outer world, the consideration of these relations might not be altogether inappropriate to the commencement of the Annual Meeting of an Association, the objects of which are not only the mutual improvement and instruction of its members, and the promotion of mutual goodwill, but also the advancement of the character and the elevation of the aims of the profession. Of these, we must all agree in esteeming the highest to be its utility to our fellow-creatures. And it cannot be doubted that this utility is in no small degree dependent on the estimation in which the profession is held, and on the confidence with which its help is appealed to.

THE
ADDRESS IN MEDICINE.

BY
WILLIAM BUDD, M.D.,

HONORARY AND CONSULTING PHYSICIAN TO THE BRISTOL ROYAL INFIRMARY.

VARIOLA OVINA, SHEEP'S SMALL-POX; OR
THE LAWS OF CONTAGIOUS EPIDEMICS
ILLUSTRATED BY AN EXPERI-
MENTAL TYPE.

"L'Épidémie est l'effet et non la cause de la contagion."—*Gendron de l'Eure.*

"Veluti in speculo."

IN complying with the request of the Association to deliver the Address in Medicine for the present year, I shall follow the example of my immediate predecessors, and confine myself to a single theme. For reasons which will, probably, be readily understood by many who hear me, the particular theme I have chosen is one bearing on the subject of epidemics. There is no need in an assembly like this to dilate on its importance.

There are few secrets in nature which it is of greater moment to us to penetrate, than that of the rise, spread, and deadly power of these terrible scourges. In the aggregate, take the world through, they cause more untimely deaths, more sickness, more sorrow, more loss of labour, bodily and mental, than any of the other ills to which humanity is subject. They attack us in the cradle, they pursue us through youth and manhood; in old age, they still linger about our path. They are among our greatest hindrances in the battle of life, even when they do not end life itself by a sudden and invisible stroke. Every year, in all lands, a vast hecatomb of men prematurely gathered to the grave bears witness to their power.

To rescue mankind from the grasp of epidemic disorders should, therefore, be the settled, as it must always be the highest, ambition of our art. With Jenner's immortal discovery before us to show that such an ambition is neither presumptuous nor vain, the growing attention paid, of late years, to this great subject is easily understood.

In England, as is well known, a society has been established for its sole and special cultivation. In the annual reports of the French Academy of Medicine, epidemics have long occupied a large space. In Germany, as, indeed, in all countries in which medicine is studied as a science, they are fast rising as objects of inquiry into the prominence which their importance deserves.

Unfortunately, the advance of knowledge bears, as yet, but scant proportion to the efforts spent in its pursuit. This, as it seems to me, may be mainly traced to two causes; first, to an exaggerated estimate of the difficulties of the subject; and secondly, to want of clear views as to the method to be followed

in its investigation. Authors have occupied themselves far too much in dwelling on the inscrutable nature of epidemic poisons, and in accumulating epithets to signify the hopelessness of attempts to discover the laws of their action. This practice hinders the advance of science, by discouraging inquiry; and, still more fatally, by begetting a prejudice against precise views, on the plea that such views are unattainable, and cannot, therefore, be in accordance with truth.

The difficulties of the subject are obvious. The material causes of epidemics are invisible; and the laws which govern invisible things must needs be hard to make out. But that they may be perfectly made out is clear from this, that the invisible powers of nature, such as gravitation for instance, are the very powers of which our knowledge is the most sure and precise.

On the other hand, the problem of the epidemiologist has in it at least one element of simplicity which is denied to the student of other diseases; namely, that its chief concern is with the history of a single cause. His principal task is to trace, in each case, the biography, if I may so speak, of a single species. The method most in vogue in inquiries of this kind, is to accumulate a mass of statistical details—meteorological, physiological, topographical, and other—relating to the particular epidemic disease which may happen to be in question, often with the most impartial indifference as to whether these details establish anything of importance, or not.

If we had not experience to appeal to in proof of the assertion, it would not be difficult to show, on philosophical grounds, that this mode of proceeding must necessarily be extremely barren of results. Evidence so collected is, no doubt, of value; but it is chiefly as furnishing data for the real discoverer to work upon.

Statistics afford much important information on epidemics; but it is all of a general kind. The really vital questions they leave almost untouched. Neither on the mode of being of the morbid agent without the body, nor on its mode of action within, do they throw any but a dim and distant light. Happily, there is another principle at our service which is of far greater promise.

The chief difficulty of the inquiry arises, as I said before, from the fact, that its subjects are, for the most part, not objects of sense, but only known by their effects. In the face of this difficulty, the only sure way of proceeding obviously is to begin with the study of those types which in their mode of action offer something tangible for the observer to lay hold of; something that may enable him to bring the diffuse, vagrant, and impalpable thing to book—if I may use such an expression—and to put to it definite questions with some chance of definite answers.

What we want is some clue, however slender, to guide us through the obscurity in which the truth lies hid. Now, exactly such a clue is found in that most remarkable of properties; the power which certain epidemic disorders possess of spreading by contagion.

In the act of contagion, we are brought into direct relation with the epidemic poison at one very important phase of its existence. Before this address is concluded, I hope to make it clear that in the conditions which often attach to this act, there are data which will carry us very deep into the secrets we most desire to know.

The first position I would take, therefore, is, that if we wish to obtain clear views on the subject of epidemics generally, our surest plan is to begin with the study of the contagious group.

The next position speaks for itself. It is, that of this group we should select those which, from peculiarities in the mode of evolution of the virus, admit of being propagated artificially; which offer, in other words, the incomparable advantage of being studied experimentally.

If we were asked to define what other conditions we would most desire, in order to make our task the more easy, our answer would be, that all the sufferers should be under our own eye; that their incomings and outgoings and intercourse with one another should be known to us; or, better still, should be determined by our own will. It will be seen at once that, taken together, these are conditions which are not to be met with in human life. They are only to be found, in fact, in the case of the domestic animals.†

Since we last met, the West of England has witnessed an epidemic among one of the chief of these, in which all the conditions just enumerated were fulfilled to the letter, with one more added, almost equal in value to all the rest. The pest, in the case to which I refer, was entirely new to the country in which it raged. For a century, at least, nothing has occurred in this island more deeply instructive to the epidemiologist than the remarkable outbreak of the disease popularly known by the name of small-pox, which ravaged the Wiltshire flocks last autumn. For this, I need scarcely say, is the event of which I speak.

On the 13th September, 1862, while the disorder was still rife, I visited the diseased flocks, and enjoyed the great privilege of studying the malady from the life, under the able guidance of Professor Simonds. I beg to take this opportunity of returning publicly to that gentleman, my best thanks for the great kindness he showed to me on that occasion.‡

As there were still, at that time, some six or eight hundred patients in all stages of the disorder, it was not difficult, under such able teaching, to become acquainted, even in the short compass of a single day, with its leading characteristics.

† There can be no more striking proof of the little way the philosophy of this branch of inquiry has made among us than the small space given to epizootics by the professional epidemiologist. The only scientific accounts of them must be sought for in the works of veterinarians. With the exception of our distinguished associate Mr. Ceely, of Sir H. Holland, and of one or two others, the allusions of English physicians to the diseases of animals are only remarkable as betraying their ignorance of the whole subject.

‡ With the liberality characteristic of the true man of science, Professor Simonds communicated to me at once all he knew of the history of the outbreak, and at the cost of infinite pains demonstrated to me all the leading features of the disorder.

Awaiting the fuller and more accurate record of this outbreak, which I trust we are yet to have, from one or both of the eminent men who advised the government in the emergency, I will ask your permission, in default of a better topic, to occupy the remainder of the short hour allotted to these addresses in laying before you the more salient points of the information I then acquired, together with some reflections which have been since suggested to me by the study of the disease in veterinary works.† In doing this, it is hardly necessary to observe that I shall not treat the subject in its bearing on agricultural interests, but confine myself to its purely scientific and medical aspects.‡

After what I have already said, no apology will be needed for thus bringing to the notice of gentlemen whose lives are passed in watching the diseases of men, a disease which is peculiar to one of the lower animals. The very name which this distemper bears—small-pox in sheep—attests its human interest, as the series of relations which suggested this name, attests the entire applicability of any inferences drawn from it to the great and important group of which human small-pox is the type. In passing under review the phenomena of this outbreak, we shall, in fact, find ourselves reviewing the phenomena—and I may add discussing the questions—which most press upon the mind in regard to the contagious fevers of our own race.

As the disease itself, except as a matter of common report, is probably new to most of my hearers, a few preliminary words as to its history and characters may not be out of place.

As to its history in past time, but little is known. Its first origin, like that of human small-pox, is lost in the mist of ages, and hidden by the same impenetrable veil which hides the first origin of all other created things. Like human small-pox—on what grounds I do not exactly know—it is supposed to have first come into being, in the great, mysterious, maternal East. In Europe, it can be traced distinctly back only to the sixteenth century. The first clear account of the disease in any European tongue, is to be found, it is said—for I do not speak of my own knowledge—in the writings of Rabelais. From an early period it has covered a very wide area in the Old World. India and Africa have been infested by it from time immemorial. America still lives in happy ignorance of this ovine plague; but there is no province in continental Europe whose flocks have not suffered severely from it. In Italy and Spain, the *clavelle*, as the French call the malady, is the one great dread of the flock-master. In Bessarabia, Austria, Prussia, Holstein,

† The sources from which what follows is mostly drawn, are—1. Information acquired in my visit to Allington; 2. Professor Simonds' masterly monograph on *Variola Ovina*; 3. Hurler d'Arboval's admirable articles on "Clavelle"; 4. "Claveau"; "Clavelisation"; "Vaccination"; and "Vaccine"; in the *Dictionnaire de Médecine Vétérinaire*; Professor Troussau's *Clinique Néonatale*; and various articles on the Wilt outbreak, by Professors Simonds and Gamgee, in the *Veterinarian* and the *Edinburgh Veterinary Review*.

‡ For this reason, I shall make no reference, for instance, to the animated discussion which has sprung up as to the way in which these two interests were affected by the practice of inoculation in the infected district.

Denmark, and Holland, it is a standing scourge. The whole north of France is the scene of frequent epidemics of it. But, until some seventeen years ago—with, perhaps, one doubtful exception—the disease had remained entirely unknown in this country. Up to that date, the shepherd of Picardy, watching with dismay his dying and plague-stricken lambs, covered with the well known blains, might look with envious eyes across the narrow channel, and almost see on a clear day, browsing on the white cliffs of the sea-girt island opposite, countless flocks that from all time had lived in virgin immunity from the pest at his feet.

"The circumstance is easy to explain," says Hurel d'Arboval, "if we reflect that in almost all cases the disease is the result of contagion, and if we consider the severe measures enforced in England against the importation of foreign sheep into that island." (*Dictionnaire de Médecine Vétérinaire*, article 'Clavelée', p. 264-65.)

The time had now come when this long-standing contrast was to cease. With the triumph of free-trade, the measures referred to by the French veterinarian were relaxed, and foreign sheep were admitted without stint. Before the year 1847, the whole number imported amounted only to a few hundreds, selected, too, for the most part, by the English agriculturist for some special merits, with all the care to ensure freedom from disease which such a proceeding implies. A few years afterwards, the number had grown to several hundred thousand; and the sheep, instead of being picked out from the foreign fold by the English buyer, were sent wholesale to the English market as an article of common commerce by the foreign flock-master. Unfortunately, the change fell upon an evil time. Quarantine and all other measures intended to prevent the introduction of disease from abroad had fallen into discredit, if not into disuse. Contagion, as a cause of epidemic disease, had come to be looked upon as a thing of small account. Worse still, the strange and fatal delusion had got hold of men's minds, that the specific poisons of specific contagious disorders might be bred for the nonce, anywhere, out of filth, organic impurities, or what not. It seemed to be a waste of power to be taking precautions against the importation from without of what might turn up any day as a home product.

Want of acquaintance with the epidemic and contagious maladies of foreign live-stock had, no doubt, its share, also, in allaying the vigilance the occasion so much needed. And so it happened that the barriers were thrown down, without those precautions being taken which alone could render the proceeding safe. The result has been that, within the short space of sixteen years, England, which for the whole thousand years before had never known this plague, has thrice seen it commit great havoc in her flocks. Thus have we become indebted to the British government for events disastrous to agriculture; but, could they be made to tell their whole tale, of the utmost value to science.

On the characters of the disease itself I need not dwell long. The name it bears enables me to dispense with any lengthened description. What human small-pox is to man, that precisely, and in all ways, is this disease to the sheep. It is a contagious eruptive fever, which spreads in what is called the natural way, but is susceptible also of being inoculated. Like small-pox—and, I may add, like all the other contagious fevers—it unites the two fundamental charac-

teristics of having a period of incubation, and of occurring but once in life.†

By comparing the drawings here exhibited, you may see how close and striking is the outward resemblance of the eruption in the two diseases. Its distribution in each is exactly alike. The skin, the nostrils and fauces, and the upper part of the respiratory tract, are its common seat in both. In both, the mode of evolution is the same.

The ovine eruption begins under the form of papule, confluent or discrete, culminating in a vesicle which is often marked by a central depression, and is filled by lymph, which, at first translucent, ends in becoming opaque. It forms crusts, which fall away by a slow desquamation. It leaves pits. Not rarely falling upon the eye, it leads to blindness. It is a frequent cause of abortion; the dropped lambs being, in this case, often covered with variolous pustules.

There is the same parallelism between the two in the constitutional disturbance. Ovine small-pox is ushered in by high fever and great general distress, which are relieved for a time by the eruption, to recur again under the typhoid form in the suppurative stage. It is often attended by bloody urine and extensive ecchymoses. It kills in the same way as its human antitype.

If you examine the drawings minutely, you will observe some marked differences. The papule, for instance, are much broader in the sheep, varying in breadth from that of a fourpenny-piece to that of a shilling: having the appearance of large flat warts occupying the whole thickness of the skin, and imbedded in it. Other points of difference might be noted if need were, and if time allowed. It is rather, however, with the points of resemblance than with those of difference that we are here concerned. It is sufficient to our present purpose to know that this is a typical member of the great group of contagious fevers, which are propagated by a specific poison, which have a period of incubation, which multiply as they go, and which occur but once in life.

The farm in which this remarkable disease suddenly made its appearance in June last year is situated in the parish of Allington, about seven miles north-east of Devizes, and at the foot of the range of chalk-hills known as the Beckingham Downs. In gazing upon that fine, open, breezy country, the idea of pestilence is the last that would ever occur to the mind. The sheep first attacked were the property of Mr. Joseph Parry, a gentleman noted for the pure breed and healthy character of his flock.

As far as there is evidence to show, the outbreak itself began, as such outbreaks generally do, with a single case. Towards the latter end of June, Mr. Parry, riding alongside one of his folds containing about three hundred ewes, observed one of them lying on the hurdles, at the point of death. She was, in fact, in the last stage of variola ovina, and died shortly after. The carcass was put aside, and little was thought of the circumstance. In the course of a few days, other sheep of the same lot were attacked, and died in the same way; and Mr. Parry was soon made aware that his flock was becoming the prey of a new and fatal scourge. The two-year old ewes had up to that time been kept with their lambs; but, it being thought better to separate them, the lambs were removed and put with other lambs on the farm, the ewes being turned among the general breeding stock—making altogether a thousand ewes and seven hundred lambs. Unfortunately, both ewes and lambs carried the infection with them.

† For the sake of simplicity, the word "contagion" is used throughout this essay as signifying the communication of a specific disease, through whatever medium, by specific germs thrown off by subjects already suffering from it.

In about a fortnight—which, I may remark, is about the average period of incubation when the disease is taken in the natural way—the same symptoms began to show themselves in the flock generally. From this time the march of events was swift. By the end of July, more than four hundred sheep had been attacked, and two hundred or thereabouts had already perished. So rapidly and with such fatal effect did the heaven work.

Things were at this pass when, on the 1st of August, Professor Simonds, who had been summoned from London, arrived at Allington. "As the best means of saving the rest of the flock, and of putting a definite term to the outbreak, this gentleman resolved to inoculate the whole flock"—an operation that was performed without delay.

Before the epidemic ceased, it had spread to eight or nine other farms, and nearly 800 sheep had fallen a sacrifice to it. When I visited Wiltshire on the 13th September following, there were still, as I said before, some 700 sheep in various stages of the disease. Of these, some few had taken the disease in the natural way, but by far the greater number by inoculation.

To the physician, not the least interesting thing was to see a measure, which once had so great a vogue as a means for disarming the malignity of human small-pox, employed with the same aims, and with precisely the same results, in the corresponding disease of the animal. In both, the common result was the evolution of a disease of incomparably milder type than when taken in the natural way. But the great importance of the phenomena presented by inoculation consists in the clear light they throw on the nature of the disorder. In the great majority of the inoculated cases, the variola appeared in the mildest possible form. The eruption was limited to a single vesicle, and constitutional disturbance was slight or altogether absent. In some few, the course of events was otherwise; and the malady, although inoculated, took a malignant turn. One such case I saw. A sheep that had been inoculated some days before—in result, no doubt, of some individual predisposition—threw out a confluent eruption. The animal was at once sacrificed. Had the papule been allowed to develop into vesicles, there would have come from the minute atom of virus inserted by the lancet a few days before, a new crop sufficient to communicate the same disease to all the sheep in Wiltshire.†

Here, then, in results free from all ambiguity, and open to the eye, the great fact is revealed, that it is in the body of the sheep that this strange poison is fashioned and multiplied; and that the disease itself is the process by which it is bred.

In this one experimental most everything is comprised.

We see, first, how minute a germ is sufficient to produce the disorder; we see, again, how, by reason of this very minuteness, signs of general disturbance are absent until growth has taken place; and, lastly, in the immeasurable multiplication which follows, we understand in what way provision is made for the extension of the disease, until, from a single first case, a whole epidemic is evolved.

The spectacle presented to us is indeed not new. To the physicians of the last century, as seen in the case of human small-pox, it was sufficiently familiar. But, for some reason or other, we have been singularly slow in applying the lesson it so plainly taught.

I may add, that one of the main points of interest in the fact here recorded is, that it repeats in one of the lower animals a series of relations that had already been observed of another and kindred disease in man. We thus see, by the light of another pregnant and typical instance, exactly what a contagious fever is.

† Professor Simonds has recorded several exactly similar instances in his work on *Variola Orina*.

But what a form is this for disease to take! The phenomena, striking as they are when the result of inoculation, are still more so when they occur in the natural way. In the first instance, the mode of admission of the poison, at least, is known; in the second, it enters in through paths yet to be traced. Here, as in so many other cases, our perception of the marvellous nature of the facts is dimmed by our familiarity with them. In some sense, their succession is, no doubt, more or less clearly apprehended; but the language habitually used to express them seems to me to fall far short of an adequate statement of the mystery. What in the whole range of medicine is so striking as this invasion of the yet living and unbroken frame by a power which, like an evil spirit of the olden time—unseen, untraceable, and unbidden, enters in and takes possession, and holds riot and revel there, to issue forth again reinforced by a countless progeny? What so wonderful as this *imperium in imperio*, in which the majestic spirit that animates the human form is dethroned, and the noble form itself is often marred and laid in the dust, by a thing in comparison with which mildew and toadstool stand high in the scale of being?

To resume, then, we have it as the result of experiment, that the virus of variola ovina is bred in the body of the sheep. By the same means it has been ascertained that this virus is incapable of breeding in the body of any other animal, or, at least, of the great group of animals that are familiar to us, and that, like sheep, come into relation with us in our daily life. Pigs, horses, poultry of all kinds, dogs, cats, rabbits, monkeys, and even the goat, which in nature and organisation is but one remove from the sheep, have all been inoculated with it in vain.† The same fact holds good as to the ox tribe; and lastly, as to man himself. The experiment: have been often repeated in various countries, and always, as far as I have been able to learn, with the same negative result.‡

As it was supposed that the virus might prove a substitute for vaccine, and might possibly give even a greater security against small-pox, the experiments on the human body have been more numerous than those on any other species. In spite of some few assertions to the contrary, nothing seems better ascertained than that man is entirely insusceptible of it.§

The experiments of the French and German schools fulfil every scientific requirement, and seem to be conclusive as to the point. The operation, performed, over and over again, on large numbers of unvaccinated children of different ages, always proved abortive. That the failure depended neither on constitutional peculiarity in the subjects, nor on defect in the ovine virus, was shown by a double test. The virus which had proved inert on the children promptly took effect on sheep, while on the other hand, the same children were afterwards vaccinated with success. These results have been verified in this country by experiments on a large scale by Mr. Marson, and by our honoured associate Mr. Ceely, whose name is the best guarantee for the accuracy of the facts. Conjointly, these gentlemen have performed no fewer than 250 vaccinations on the human subject, with the virus of sheep-pox.

"I inoculated twenty-five subjects," says Mr. Ceely, "whose ages ranged from three to fifteen years, some

† At one of the infected farms in Wilts, there was a goat which passed its whole time with the diseased sheep, and was inoculated more than once, but entirely without effect.

‡ See for details, Hurler d'Arbous's articles, "Clavelée," "Claveau," and "Clavelation," in the *Dictionnaire de Médecine Vétérinaire*; and Professor Simonds's work on *Variola Orina*.

§ The chief, if not the only, witness on the other side is Sacco; at his evident desire to be looked upon as the author of important discoveries, and the fact that not one of his many alleged results have been verified by experiment in other countries, throws great discredit on his statements.

twice and thrice over; in none were there fewer than six punctures each time, making not less than 180 punctures: no specific disease resulted, but a prompt and devious popular or diffuse inflammation, or more rarely a common local pustular. In the majority of these twenty-five individuals the virus employed was liquid. When any recently charged points were used, subsequent re-inoculation with liquid virus took no other effect. Nearly all the above subjects were shortly afterwards vaccinated with current vaccine lymph, which in each case exhibited the normal effects. I may as well add, also, that the same kind of ovine virus which did not succeed on children, took promptly on sheep." (Simonds *On Variola Ovina*, page 154-5.)

Whether future researches may show these statements to be too absolute, I do not know; but as they stand at present, they are in entire conformity with what common observation teaches.

In connection with this epidemic in Wilts, perhaps the most striking thing of all, was, that while the sheep were dying, by wholesale, of one of the most terrible of plagues, they were the only animals that suffered; so deadly was it to them, so entirely harmless to every other living thing. In more than one instance indeed, as we shall presently see, the infection passed from flock to flock, over a distance of nearly a mile in length.

But while even to be pastured in fields a mile away from an infected fold, was pestilence and death to sheep, the horses, dogs, oxen, swine, and other live-stock—even the starlings and flies which passed nearly their whole time on the sheep's backs, with the organs thought to be most prone to receive infection, immersed in the variolous discharge, continued to enjoy the most perfect health.† Especially striking, considering the name the disorder bears, was the immunity of the men who had charge of the diseased flocks. Yeoman and shepherds fed largely on mutton, men whose bodies might not inaccurately be described as consisting in great part of mutton built up into man—might be seen there, handling the diseased animals in all manner of ways with the most perfect impunity. It is as if we were dealing with some chemical, of reaction so delicate that its presence can only be revealed by a single test; or rather (for this, no doubt, is the truer analogy) with some parasitic animal or plant, which finds in the organism of a single living species the only conditions of its life. I need not dwell on the extreme importance of this as a characteristic of a poison which is a standing source of wide-spread epidemics.

I may remark, however, that, in greater or less degree, it is a characteristic of the whole family of contagious poisons. Some few among them act in the same specific way on more than one kind, but the greater number seem to affect only a single species. In the most fatal epidemics of scarlet fever, yellow fever, measles, typhoid fever, and typhus, for instance; and it is most strange that so little stress should have

been laid on a fact of such profound significance—the animals attendant upon man and in closest communication with him, never appear to suffer from the same plague. The value of the present instance consists in the fact, that it does not come to our knowledge by way of vague inference more or less open to doubt, but is established by the joint and irrefragable testimony of experiment and observation.

The same may be said of one more point on which I have to touch,—and nothing can show more decisively how entirely these contagious fevers are one family group than that you will all anticipate what I am about to say—the variola ovina, whether natural or inoculated, once occurring, exhausts the susceptibility to the same poison for the remainder of life. So that this poison not only breeds exclusively in the body of the sheep; but, as a rule, can breed even in the sheep's body but once in life.‡ So subtle, so incomparably specific are the conditions attaching to the reproduction of these contagious poisons. But if the propagation of the disease, as studied by the light of inoculation, be thus instructive, its spread in what is called the natural way, as illustrated by the course of events in Wilts, was scarcely less so.

It will be remembered that the outbreak which began with a single case in Mr. Parry's flock, extended, before it died out, to eight other flocks. In nearly all these instances, not only had there been no direct communication, but, in more than one, the flock which became affected secondarily was separated from the flock which gave the infection, by a wide space. One of these flocks I visited. The field in which the sheep were then pastured was at least three-quarters of a mile, as the crow flies, from the sheep that had communicated the taint. The two flocks, the owner assured me, had never been in closer proximity than this. In the natural dread of so costly a scourge, he, as well as all the other sufferers, had guarded his sheep with the most jealous care; but the disease was, nevertheless, transmitted.‡

Still more memorable was the infection of Mr. Church's flock, whose farm at Hillswood must be some fifteen miles distant from the site of the Allington outbreak. This gentleman's sheep had been pastured in a field bounded by the high road, and over this road sheep from the infected district had passed to and fro. This was, as far as could be discovered, the only connecting link between the flock and the original focus of the poison. What makes the case the more remarkable is, that the sheep which had travelled along the road, although subsequently affected with clavelée, had not at that time suffered from it. The importance of these facts in relation to epidemics generally, will be at once seen. When events, at all parallel to these, occur in man, they are set down at once as altogether excluding the idea of propagation by communication of the morbid germ from the sick

† I make this reservation, because it is easy to see, *à priori*, that experiments which issue in merely negative results require to be repeated a great number of times before absolute reliance can be placed upon them. Any one who will read the account of Mr. Geely's admirable researches on the origin of vaccine, or who has undertaken experimental inquiries of this kind himself, will understand how necessary this condition is. But, after all, we scarcely need the evidence of experiment to show that this disease is peculiarly a disease of sheep.

‡ Professor Gamgee states, on the authority of Mr. John Percival, that a sheep dog belonging to Mr. Stephen Neate of Allcannings, whose flock suffered severely, took the disorder. In the many works I have consulted on the subject of clavelée, although the liability of animals, other than the sheep, is fully discussed, I have found no mention of a similar fact. It would have been well, under the circumstances, if Mr. Percival had tested the identity of the canine disorder by inoculating from the lymph it produced. It was at one time reported that Mr. Parry's dogs had clavelée; and, curiously enough, they were affected with a pustular eruption, but it bore no relation to the disease in the sheep.

† I say as a rule, because exceptions to it happen under the same circumstances, and in about the same proportion as in human small-pox and in the other contagious fevers. Professor Gamgee has lately recorded an instance of such exceptions occurring on so large a scale as to imply either some peculiar liability in the particular flock, or something spurious in the antecedent attack.

‡ The case of Mr. Harding's flock, of Etchinghampton, was still more remarkable. "The spot where the sheep were folded" (I quote from an account in the *Veterinarian*) "was about a mile and a half distant from Mr. Parry's farm, and in the intermediate space were other farms occupied by flocks belonging to different proprietors, and every care had been taken to prevent either direct or mediate communication with Mr. Parry's flock. As an additional precaution, the sheep had been driven to the part of Mr. Harding's farm most distant from Mr. Parry's." In one instance, the germ of the disease was apparently carried a distance of more than twenty miles by some lambs, which, although affected with clavelée afterwards, had not then suffered. Before his flock was attacked, Mr. Neate sold some of his lambs. These lambs stopped at Aldbourne, on the road to Ilisbury, beyond Marlborough, on August 22nd, but were taken back by their former owner as soon as he found his flock infected. A case of clavelée occurred at Aldbourne shortly afterwards.

to the healthy.† And yet nothing can be more certain than that in the case before us the disease was propagated in this way. To argue the point at any length would be a waste of words.

The fact, first, that since sheep were first pastured on these uplands, this pest had never before appeared; and secondly, that the only sheep in all England that suffered were the neighbours of Mr. Parry's, and were affected long subsequently to his, is in itself sufficient. This admitted, it becomes interesting to inquire in what probable ways the germ was transmitted from one flock to another. Several modes may be specified as having possibly intervened. The virus might have been conveyed—

1. By flies, or by starlings.
2. By men who had visited diseased flocks.
3. By sheep from the infected district.
4. By atmospheric dispersion, as it was cast off by the diseased animals.

Some have attempted to throw ridicule on the first of these supposed modes; but it was impossible to spend a day among the diseased flocks without seeing the great probability, to say the least, of its having had a share in the dissemination of the poison. From the disease being seated on the skin, the sheep were infested by flies and other insects to an extreme degree; all busy either in feeding on the variolous discharge, or in depositing eggs. The starlings, in their turn, came in quest of the flies. On approaching every fold of variolous sheep, a swarm of flies, and a great flight of starlings, rose into the air from their backs. As it is probable the attentions of neither were confined to the diseased flocks, it is easy to see how the virus might have been conveyed from one flock to another by their agency. That the disease may be carried from flock to flock by men has long been proved.

Professor Simonds related to me two decisive instances of the fact, which had fallen under his notice in former epidemics. Numerous others are recorded in works on cavelée.

As Mr. Parry's flock was at first, naturally enough, an object of great curiosity to his neighbours and was visited by many of them, it is quite possible that the disease may have been in part transmitted in this manner. An instance has already been related here of its probable communication by sheep—themselves unaffected.

For reasons on which I have not now time to enlarge, it was pretty certain, however, that the poison was chiefly diffused through the air. This is no doubt the way in which the virus of human small-pox is mainly distributed, and the spread of the two diseases appears to follow exactly the same laws. The well-known fact that both spread most rapidly and widely in hot weather, and especially in the absence of continued rain, is best explained by this view. The result may be brought about in two different ways: first, by atmospheric dispersion of the dried crusts resolved into impalpable dust; and, secondly, by the poison being wafted gently through the air in the form of nebule; to borrow Professor Simond's fine and suggestive expression—"as it rises from the sheep's bodies."

† Human maladies are, it is true, not often transmitted through the air—on a large scale, at least—over such wide distances, for the simple reason, that sick men do not live "in the open air," like sheep, and are not massed together in the same way. But the difference is one of degree only. On the other hand, some of the most fatal and destructive of the epidemic diseases of men are propagated by discharges, which are often cast upon the open ground, and become the source of a widely diffused miasm. As these discharges are liquid, they are sometimes carried by gravitation to long distances, and the area of infection is thus greatly enlarged.

‡ As regards human small-pox, this was first remarked by Sydenham, and has been verified by all experience since. Hurtrel d'Arboval states that variola ovina has been always observed to spread most in dry seasons. The absence of rain, I imagine, is the really important element.

Those who have had the good fortune to engage much in field-sports—a form of enjoyment equally invigorating to mind and body, and for men whose chief business in life is the observation and interpretation of nature, one of the best modes of training—will have no difficulty in conceiving this last mode of transmission. On a good scenting day, and with a favourable breeze, I have seen a pointer wind a covey which I had marked down a few minutes before,—and which had had no time to run,—very nearly the length of a long field. If the infinitesimally minute particles emanating at such a distance from some ten or twelve partridges, insensible as these particles are to us, can impinge on the olfactory nerve of the dog, with sufficient efficacy to enable him to recognise his game, and to excite his whole frame to spasmodic action, it is easy to conceive how, under favourable conditions of weather, the emanations from a large flock of sheep stricken with variola may be wafted by a gentle breeze through thrice that space, with full power to propagate the specific disorder.

Looking now, in a broad way, at the whole series of the events I have narrated, their interest is extreme, as showing, with singular precision and clearness, in what way and by what exact process of development, an exclusively contagious disease may, from a single first case, grow, in a short time, to an epidemic of large proportions.

As we have already seen, the disease eventually spread from the case of the ewe that lay dying by the hurdles, to eight other flocks, and many thousand sheep, occupying an area of several square miles, and extending into three counties. It is no objection to the facts that artificial propagation played a part in their production; for, had events been left entirely to their natural course, the spread of the infection would have been incomparably more rapid and wide.

Indeed, had not man intervened, had not the most stringent measures been taken to prevent the spread of the disorder, there can be no doubt that it would not have remained limited to the area to which it was restricted; but, as in all other countries in which the same precautions have not been adopted, would, like its congener, human small-pox, have overrun the kingdom, and become naturalised among us.

Now, what I wish you particularly to observe is this: that when events of this same kind occur in the case of man—when small-pox, typhus, typhoid, scarlet fever, or any other contagious fever, spreads thus widely and becomes epidemic—it is generally supposed that some new element has come into play, of an entirely different order from those which are in operation when the extension of the disease is confined to a single group. The case is not often, it is true, put in this distinct way. The phrases used are more or less vague, like the ideas they represent. If nothing more were meant than that, when a contagious disease becomes epidemic there must be a concurrence of conditions favourable to its propagation by its known mode of multiplication, no exception could be taken to the view. But it is clear, from the terms in common use on this subject, that much more than this is implied. The two characteristics are put in direct opposition to one another, as things essentially different, if not antagonistic. Thus, small-pox, typhus, and the rest, are said, for instance, to be both contagious and epidemic. In the same way, variola ovina, the very disease of which we here treat, is said to be both contagious and epizootic. Even in their etymology, the two words express an antithesis.

Now, if this language mean anything, it means that when a contagious disorder becomes epidemic, the morbid agent has come into being in some condition, and by some mode of development, other

than that which occurs when it is propagated by direct contagion from one individual to another.†

The events observed in Wiltshire are of incomparable value, as showing by data, which are scarcely inferior in severity and precision to those of the exact sciences, the entire fallacy of this view. For, be it observed, this epidemic in sheep was, in all essential things, the exact counterpart of the epidemics which infest mankind. There was the same evidence of growth from a small beginning until a large community was involved; the same commingling of cases in which the operation of contagion was evident, with others in which the connecting thread was lost in the mazes of a vague and manifold diffusion; and others still in which, from the nature of the events, under the common view of them, the very idea of contagion seemed to be altogether excluded.

Now, the strength of this case is, not merely that we see where and how the specific poison is actually bred—not merely that we have ascertained by experiment how marvellously exclusive are the conditions attaching to its growth—not even that in its immeasurable powers of growth we recognise an adequate source for all that follows; but that we exclude the intervention of every other source by the overwhelming evidence of a thousand years of antecedent immunity.

Every other element was here before, but *clavelée* never; the germ of the disease is introduced, and the result is what we witness. The history of human small-pox teaches, indeed, the same lesson; but in this outbreak of ovine variola we read it in characters still more plain.

To say that in the epidemics of contagious disorders other conditions may not intervene, in an important way, in the common result, would, of course, be absurd. But it is essential to all clear views of these high and complex questions, to see with the utmost clearness that these conditions are secondary only, and act solely in promoting the growth and dissemination of the one essential thing.

When locusts, from being more an object of interest to the naturalist than a serious cause of alarm to the grower of the mulberry and the vine, rise into swarms which darken the air, and sweeping beyond the bounds of their native habitat destroy the vegetation of half a continent, we all know that there must have been an unusual concurrence of conditions favourable to the multiplication of the insect. But we all know, with the same certainty, that it is the breeding power of the locust itself that has brought these countless hosts of winged enemies into the field.

Three other topics remain on which a few words must be said before I conclude. What precise relation does variola ovina bear to human small-pox? How came it to spring up in Wilts? What were the means by which, after it had risen to so great a head, it was finally extinguished?

The relation of the disease to human small-pox, interesting as it is, need not detain us long. In the introductory part of this address, we have seen how curiously close, as well as various, are the points of analogy between them. The name assigned, by common consent, to the ovine distemper shows better, perhaps, than anything else how striking they are. It is impossible, in fact, to see the malady—as you may yourselves, in part, judge from inspecting the accompanying drawings—without the idea of small-pox at once starting to the mind. But to presume upon actual identity in a case like this, on the ground of mere resemblance in outward characters—however accurate

this resemblance may be—is to proceed on a false principle.

In the absence of other evidence, indeed, we must be content with such light as evidence of this order affords. But, in the present instance, there is another test that touches the root of the matter much more nearly.

These two diseases—the variola ovina and the human variola—are both things that breed. Each perpetuates its own species. If they be not two species, but one, it is clear, therefore, that in some way the one must have been derived from the other.

Now, tried by this test, the case seems to be decisive against the identity of these two distempers. We have already seen that man is proof against the ovine disease. He neither takes it in the natural way, nor can he be inoculated with it. The sheep is equally proof against human small-pox. Had human small-pox the power to generate this disease in the sheep in the natural way, British flocks would not have enjoyed so long an immunity from it. The inoculation of the sheep with small-pox virus is, on the other hand, always abortive; or, at least, produces nothing of the nature of *clavelée*. This, perhaps, would have sufficed of itself to decide the question. But there is another experiment, which, were it only for its subtle and delicate interest as a piece of scientific evidence, and for the train of associations it wakes up in the mind, I cannot withhold.

Vaccination, as we all know, offers a specific protection against human small-pox, which is all but complete; against ovine small-pox it offers no specific protection at all. It has been proved by experiments on an enormous scale, performed under every condition to insure accuracy, that vaccinated sheep, when afterwards exposed to the infection of *clavelée*, take the disease in large proportion in the natural way; and that, when inoculated with it, they not only incur the usual consequences, but suffer quite as severely as unvaccinated sheep.†

Until evidence to the contrary shall arise, the conclusion, then, seems to be inevitable, that variola ovina and human small-pox, closely as they resemble one another, are of distinct species. They are as two kinds of thistle—as one sort of mushroom to another sort—or as two species of alga—like almost to identity in looks and outward guise, identical in all their laws of growth and being, but yet specifically different. This being so, the close resemblance between these two diseases becomes a matter for new interest. That, being so like that, to judge from first impressions, one would almost swear they were the same thing, each should have, against the other, such specific limitations of growth and power, is a fact of the deepest significance.

It is one more fact to show—if further proof were needed—what intensely specific things these contagious principles are; and, although we are in the habit of speaking of them as so many *poisons*, how different in essence they must be from our idea of poisons, when the word is used in its chemical sense. It only adds to the interest to know that the example here adduced is an example of a general fact.

I have endeavoured to illustrate the relation of human to ovine variola by a parallel drawn from or-

† This is shown still more strikingly by the language of not a few writers, who altogether invert the true relation, and while admitting certain disorders to be contagious, hold that they only become so when strongly epidemic.

† There is, indeed, evidence to render it probable that for some weeks after vaccination sheep are somewhat less prone to take *clavelée* in the natural way; but there is clearly nothing specific in the protecting influence. Louis has remarked that typhoid fever hardly ever occurs in persons who may at the time be the subject of any other morbid disturbance. The two facts are, probably, of the same order. The failure of vaccination as a preventive of *clavelée* is the more important, because it produces in the sheep a disease which would appear to be the exact equivalent of vaccine. Hurel d'Arboval states that lymph taken from the resulting vesicle, and used for vaccination, produces the normal effects of that operation in man, and affords the same protection against small-pox.

ganic nature. This parallel might be carried much beyond the present case, with strict adherence to nature and truth. For, if we extend our survey from the contagious diseases of man to those of the lower animals—not to speak of those of plants—we shall see that, as in the living flora there are tribes of thistles, of mushrooms, and of algae, so among these morbid principles there are whole tribes also, bearing exactly similar and equally close resemblances one to the other, and yet specifically different.

In studying these things on an enlarged scale, we become, in fact, gradually aware that the singular agents which lead this parasitic existence, constitute a whole order to themselves, in their mode of growth and perpetuation, in their likenesses and differences, as, indeed, in many other things, the exact reflex of the organic types that people the world without, and on whose substance they prey. How have they all come into being? What, for instance—for the question will recur—is the relation between these two forms of variola, which in the drawings here look so wondrously alike? Although specifically different, may there not after all be some genetic connection between them? May not the one possibly be derived from the other by some such metamorphosis as that which naturalists begin to suspect is the key to that mysterious resemblance which runs through the organic types of the outer world? Or, rather—for this would probably be the truer way of putting the question—may they not be derived from some third, different from either, but the common progenitor of both?

These are problems of the future; problems of deep and various interest, but which must be postponed in the presence of the more pressing questions of the hour and day.

The origin of this remarkable outbreak in the Wiltshire flocks now comes to be considered. In regard to this point, I may as well state that the obscurity which hung over the first introduction of the pest is not yet wholly cleared away. At first the event seemed to be quite unaccountable. Mr. Parry had made no recent additions to his flock; and the seeming seclusion in which his sheep had for some time lain, appeared to shut out the idea of infection from any extrinsic source. These being the circumstances of the case, this outbreak was at once eagerly cited, by more than one writer of the dominant school in these matters, as a glaring instance of the spontaneous generation of a specific eruptive and contagious fever.[†]

This was the theory. The fact, divested of all theory, was simply that the specific germ, whatever its origin, which infected the first sheep, had not at that time been traced to its actual source. But, between inability to trace a minute and impalpable germ on the one hand, and proof of its spontaneous origin on the other, the distance is wide indeed. How wide, let mildew and mushroom, and all the countless kingdoms of organic types that breed by minute and impalpable germs, bear witness. If the evidence brought forward to show that this sheep-fever had sprung up spontaneously were of any worth, evidence of exactly the same order might be adduced to show that all these things spring up spontaneously too. Not only, however, has the spontaneous figment no real basis of its own, but the presumptive evidence against it, derived from the nature and history of the disease, is overwhelming. We know, in fact, how and where the poison of variola ovina is bred, and we have seen how incomparably specific and exclusive are the conditions attaching to its evolution.

Those who have weighed well what was said on this head will require, if I mistake not, something more than mere negative evidence to convince them that this is a poison which can be bred *de novo* out of the common conditions of sheep-life to be found in a Wiltshire farm. Against such a conclusion there is at once to be placed the decisive testimony of a thousand years of prior exemption. Since the Saxon first fed his flocks on those Wiltshire downs, this scourge had never once made its appearance there. Until nineteen years ago, the same might be said of England at large, under all the countless varieties of season, breeds, and sheep management, through these long, long centuries.

Enormous as is the weight of this fact as an argument against spontaneous origin, even when taken singly, its full force can only be appreciated when we contrast this immunity of ages with the frequent infraction of it during the short seventeen years which have succeeded to them. Of these two facts, each gives the interpretation of the other. Variola ovina was unknown among British flocks until seventeen years ago, because up to that time we virtually excluded the sheep of those countries in which the disease prevailed; it has broken out thrice since, because since that time we have admitted these sheep in enormous numbers and without restriction.

As regards the question of origin, the situation of this last outbreak was not without its significance. "Scotch farmers, we trust," says a Scotch writer, "may never see this disease: they are out of the way of the imported sheep." London is, in fact, the port through which they nearly all come in; and it will be observed that, of the three outbreaks of the pest which have already occurred in this country, not one has happened in Scotland or Ireland, or even in the north of England, but all in the south, and in those very districts which recruit their flocks most largely from the London market.

These considerations, which from the first were accessible to any one who would lay his mind open to them, might have prevented, one would have thought, that hasty resort, on the occurrence of the first difficulty, to a baseless and extravagant hypothesis, which it is so humiliating to think of, and which must look so strange in the eyes of men who cultivate the exact sciences. Since then a new fact has come to light, which shows how entirely premature such a proceeding was. About a fortnight or three weeks before this Wiltshire outbreak, a lot of foreign sheep infected with variola were sold at Smithfield to go into the west. This being so, two points in the topography of Mr. Parry's farm, brought into prominence by the local discussions on the origin of the outbreak, acquire special significance. On the first, Professor Gamgee lays great stress.

The farm, which, as we have seen, is situated at the foot of Beckingham Downs, was in part inclosed, in part open down. Now these downs are traversed in various directions by great sheep-tracks or driftways, which emerge, it is said, in the very heart of the open part of the farm. Through them sheep are driven in large numbers, partly for the sake of the wayside herbage, and partly for the evasion of tolls. "Many instances have occurred", Professor Gamgee says, "of the spread of contagious disorders, such as scab, the foot and mouth disease, rot, etc., from these infected flocks passing over the downs along the Wans Dyke—the oldest of these tracks"; and he suggests that it is more than probable that the sheep-pox was brought to Allington by the same secret and devious paths.

The next point, which was, I believe, first brought to notice by Professor Simonds, is probably still more important. For some weeks before the beginning of the outbreak, Mr. Parry's sheep had been confined to

[†] I speak here of medical writers, commonly so called. I must do the two eminent veterinarians who had charge of the diseased flocks the justice to say, that they neither of them, for a moment, gave any countenance to the popular cry in favour of spontaneous origin.

two meadows in the lowland part of his farm.† At first sight, nothing could seem more complete than the insulation of these two fields. On looking a second time, an attentive observer would not fail to note that they were bounded through their whole length by the Kennett and Avon Canal. Along this great waterway trows are slowly dragged through all hours of day and night. In their multifarious cargoes, animal manure, and the raw materials from which animal manure is made, including skins, bones, and other offal, are said to figure largely. Now, if it be true, as reported, that a lot of the varolous sheep, just referred to as having been sold at Smithfield a few weeks before, died of clavelée on the banks of the Avon lower down, the appearance of this disease in a flock browsing on the bank of the Kennett and Avon Canal is no mystery. Under any view, it is extremely difficult to believe that the appearance of the foreign pest in these two particular fields had nothing to do with their proximity to a highway used for such traffic.

Here the case stands at present. Whether or not it will ever be more fully cleared up, I do not know. Probably not. In the present temper of the farmers of Wilts as to sheep's small-pox, the man who should be proved to have been even an unwitting instrument in conveying it to their flocks would not be likely to have a very pleasant life for some time to come. Under the circumstances, there is too much reason to suppose, therefore, that any information bearing on this point which might be forthcoming, would be suppressed by the only persons that have the power to give it. Meanwhile, we may rest assured that, if we have hitherto failed in tracking the infection home, the failure is not due to any real want of continuity in the thread, but simply to the inherent difficulty of following unbroken the course of such a gossamer. As for myself, I confess that I am quite indifferent whether the broken ends which we now hold be ever reunited, being of opinion that in the present state of science, when we see a case of variola ovina spring up, we are as much entitled to infer that the germ from which it came was derived from an antecedent case, as we are to draw the same inference in regard to human small-pox.

If, however, any should be disposed to cavil at the fact that the origin of clavelée in Wiltshire has not yet been made out in its every link, I would point to the two former appearances of the disease in England, in which even this last ground of objection is taken away. These first two outbreaks, indeed, as being much more wide-spread, and as offering a far greater number and variety of instances in which the communication from flock to flock could not be traced, were, if possible, even better illustrations of epidemics generally than that we have been endeavouring to follow. In both, as I have said before, the exact trail of the infection was tracked from the foreign seaport to the two farms in Berks and Norfolk, from which it afterwards spread so widely.

The measures by which, after it had risen to so great a height, this pest was finally suppressed, were simple enough. They were founded, in fact, on the single principle that variola ovina is an exclusively contagious disorder, to be extinguished only by preventing the spread of contagion in all possible ways.

† In a paper by Mr. Gamgee, in the July number of the *Edinburgh Veterinary Review*, I find the following passage:—"The lowland portion of the Allington farm is skirted by the canal, and it is said that the sheep were near this canal when the disease broke out. I find, however, that the first case occurred amongst a portion of the flock that had been driven daily to the down for about a week. My authority is the shepherd who drove them."

When I was Mr. Parry's guest at Allington, the origin of the outbreak was the subject of much conversation; and at that time Mr. Parry's own impression certainly was, that for some weeks before the appearance of the disease, his flock had been confined to the two meadows in question.

Perfect insulation of the diseased flocks for several months, as enforced by Order in Council; instant separation of the sick from the healthy in the infected flocks themselves; the immediate slaughter and burial of all badly diseased animals; the disinfection of tainted homesteads, and of the tainted fleeces of the sheep—this was the code of measures brought into action against this new enemy. Carried out with the vigilance and untiring energy which are often so sadly wanting when the interests of health only are concerned, but which never fail when the interests of the pocket are largely at stake, they perfectly succeeded. Before the beginning of November, this scourge, which from the ewe that lay dying by the hurdles had extended to some eight or ten thousand sheep, had come to an end; and, by measures directed solely against contagion, British flocks were once more delivered from a great peril, and the nation from incalculable loss. That the result should thus answer to the theory was the only thing needed to put the seal to the history, and to make the whole case logically complete.

Thus have we seen a great epidemic unfold itself, from its first small beginnings to its final extinction, in which the *rationale* of the whole series of events is made as clear as day. In these events, a specific germ, endowed with the faculty of immeasurable multiplication, open to various modes of untraceable dissemination, and having power over a single living species, is the only new element. In the incalculable minuteness of this germ, and in its equally incalculable faculty of growth, we find a key to all the phenomena. Manifold, complex, subtle, and intricate as the results are—in all these things so characteristic of epidemics generally—it comes before us with all the force of absolute demonstration, that they all fall under the single great law of the evolution of a specific type by continuous succession. What, above all, in this spectacle, is most to be prized, is the admirable clearness with which this great truth comes out. As we see with what precision, one by one, all the essential data bearing on our problem are elicited by experiment or made plain to observation; as we observe how the few remaining ambiguities which experiment and observation leave untouched are at once swept away by the great fact that the disease before us, although prevalent from all time in other countries, is new to our own—we seem to have left the vague realms of physis, where a balance of conflicting probabilities constitutes for the most part our nearest approach to truth, for the precise and rigorous demonstrations of the physical sciences.

Not less valuable is the whole history of this disease, for the signal record it bears against the doctrine of spontaneous origin, as applied to contagious disorders. Resting on purely negative data, this doctrine is a mere figment of the mind.

The offspring of a crude and early stage of scientific culture, it has come down to us as a tradition of that phase so familiar to the student of the history of science, in which things are thought to be what they first seem, and the outward semblance is taken to be the real relation. In the nineteenth century, it is an anachronism. Among the contemporaries of Eschricht, Owen, Milne Edwards, Pasteur, and Carpenter, it should have no place.

It is to the last degree significant that wherever, in its application to this group of diseases, the question can be tried by experiment, or by the light of geographical distribution, or of data equally binding, it receives a decisive negative. Only in connection with the types that cannot be so dealt with does it still linger. Discouraged by the whole analogy of nature, shown to be untenable in every case in which definite evidence can be brought to bear, this

belief in the spontaneous origin of specific contagious diseases has already received its death-blow, and, like the strictly correlative belief in the spontaneous generation of plants and animals, is doomed soon to take its place among the things of the past.

This address, already too long, would, nevertheless, fail of all its purpose, if I brought it to a close without applying the truths it was intended to illustrate to the contagious fevers of our own race. For the present, I will content myself with a single example.

The fever I shall take is one with which you are all familiar; the typhoid fever of man. Like *variola ovina*, this, too, is a contagious fever, having a period of incubation, occurring but once in life; a fever which multiplies as it goes, and is marked by a specific eruption. For, although the character of which I speak, in the last instance, is seated on the intestine and not on the skin, you cannot doubt, if you will look at the drawings and photographs here exhibited, that such is its true definition.

Compare these drawings for a moment, with unprejudiced eye, with the drawings by their side, representing the eruptions of human and of ovine *variola*; remembering the while, that in each case you have before you the one and only specific mark of a contagious fever, and you will not, I think, fail to see that, in all, you are looking on phenomena of the same order.

But the several characteristics just enumerated are the highest conceivable by which two diseases can be related. Nothing can show more forcibly how entirely they touch and spring out of the essence of the morbid agent in each case, than the fact that they are found alike in the animal and in man. These two things, the ovine and the human fever, are, clearly, in the highest and most intimate sense of the words, things of the same sort. In all their modes of being they follow the same law. They are members of one family, in fact, as much as two kinds of mushrooms are; and, I may add, in the same sense.

Knowing the law of propagation of the one, we may apply it to that of the other, with the same certainty as we apply the law of propagation of one kind of mushroom to that of another.

If typhoid fever, like *variola ovina*, has a period of incubation—an interval, that is to say, in which, after the reception of the germ, no appreciable morbid phenomena occur—we have learnt by experiment what this implies.

We know that in the contagious fevers this most significant of characteristics depends on the fact which, in one of these two cases, is *patent to the eye*, that these diseases are caused by poisons which only develop their effects by growth within the living body, from a germ which, in the first instance, is too minute to exert any sensible action upon it. By the surest of inductions, therefore, we become possessed of the great cardinal truth, which I have already enunciated elsewhere, that the human body is the soil in which the typhoid poison breeds and multiplies, and that the fever itself is the process by which it is evolved.

Once more, if typhoid fever, like *variola ovina*, occur, as a rule, but once in life, we know—for in one of two we have ascertained the fact by experiment—that this is because, even in the living body, this poison cannot breed a second time. By the help of the same analogy, we may be equally sure that it never springs up spontaneously, but is perpetuated solely by the simple law of continuous succession.

Lastly, we may assume with the same certainty that the intestinal eruption represents the chief, if not the only out-come of the specific poison, since it is from the *variolous* eruption, the exact counterpart of this, that we charge our lancet when we proceed to the inoculation of the ovine disorder. But if so, what

an opportunity is here! This typhoid poison, thus cast forth in a liquid form to infect the ground and the sewer, slays every year, in England alone, its eighteen or twenty thousand men. As it issues from the body, it is entirely within our power. By destroying it we may bar the succession, and throw the impenetrable shield of science between the poisoned shafts and the next group of victims.

It is easy to see how many difficulties may stand in the way of the universal and perfect accomplishment even of this simple act. The extent to which it may be enforced depends much on ourselves. If we put only half the energy into the work which the Wiltshire farmers displayed in preventing the spread of the clavelée among their flocks, we shall soon reduce the twenty thousand who perish annually from typhoid fever in England to a low figure, and pave the way to the speedy and entire extinction of the pest. For myself, I never see the *exuvie* which contain its deadly seeds cast carelessly upon the world, without thinking how many homes may possibly be made desolate by that single act, and how great is the inconsistency which passes Acts of parliament, and imposes heavy penalties to prevent the destruction of some five or six hundred lives by arsenic and other poisons, and yet allows a poison which destroys its twenty thousand every year, to work its will upon the people.

One word more, and I have done. I said, that in applying the case of clavelée to the illustration of our own diseases, I would confine myself to a single example. But it is obvious, that the principles which that disease brings so clearly into view, apply with the same strictness to the propagation of the whole group of contagious fevers, and with greater or less promise of success to their prevention also.

If, instead of allowing our minds to be diverted by the baseless and obsolete notion that these fevers may spring up spontaneously, or by the unscientific idea that they may be generated by filth or other external conditions, we concentrate our attention on the great truth that it is in the living body only, that the specific poisons on which they depend are bred and perpetuated, we shall soon learn ways greatly to abate their ravages.

If I might be allowed to express the one sentiment that fills my own mind in relation to this subject, it would be this:—that it is high time we should join, with concerted aim and more earnest purpose, in efforts founded on this principle to deliver our fellow-men from these great scourges. To this course we are, in fact, moved by every high consideration that can impel men to action.

These fell disorders are always crossing our path. They defy our art, and seem to mock our power. Their presence is a standing humiliation to us. They cause the greatest and the bitterest tragedies we are called upon to witness. They leave desolation and mourning and widows and orphans in their track. Take the single case of scarlet fever, and what heart-rending scenes does not its very name evoke. Let this terrible fever sweep through a community and one seems to have for months ringing in one's ears "the voice of Rachel weeping for her children, and will not be comforted, for they are not."

Unhappily, this great Hydra of contagious diseases is not a thing that can be slain, like the Hydra of old, in single combat. Thanks, however, to the power of human genius we have already discovered that of its myriad heads, some at least are mortal. And, although to no one of us will ever be given the strength to repeat the exploit of Hercules, we may hope that, when science has forged the fitting weapons, by banding together as one man we may yet rid the earth of the monster.

THE ADDRESS IN SURGERY.

BY

AUGUSTIN PRICHARD, Esq.,

LECTURER ON SURGERY IN THE MEDICAL SCHOOL, AND SURGEON TO
THE BRISTOL ROYAL INFIRMARY.

Introduction. I should disappoint the reasonable expectation of my hearers, as I should conceal my own feelings, if I began my paper without an introductory word or two; particularly as an opportunity does not often occur of speaking in this way *ex cathedra*.

It is a post of no slight honour to be the surgical representative of this great Society; but the responsibilities and difficulties of the situation are equal to the honour, and I must be allowed to remind you, at this early stage, that our meeting here at Bristol follows in close rank that most successful assemblage of the British Medical Association in London last year; and that I stand up here in the place of one of the magnates and chief authorities and ornaments of the surgical world, whose fame is world-wide, and whose practical and eloquent address gave no small share of its *éclat* to our last meeting; but who did not, I am sorry to say, like the more considerate prophet of old, leave his mantle behind him, to clothe with some of his own powers his less fortunate successors. The kind consideration, however, with which I have always been received by my fellow-members, encourages me to hope that it will, in like ample measure, be accorded to me now; and that any shortcomings that may be noticed, will be attributed to want of ability or want of time, or to anything rather than want of desire to fulfil the duties worthily. The only points on which I will not yield to my predecessor in the office of delivering an Address in Surgery, are, in respect of zeal for the noble science and art which we profess, and wish to maintain the dignity of the profession, and the honour of the society to which we belong.

The gentlemen who have preceded me in this office for the last few years, have expressed and acted on the idea that, what with our "Retrospects" and "Abstracts" and "Year-Books," a special report of the progress of surgery is unnecessary and unprofitable. I think, on the other hand, that a brief and well-digested annual report, dealing simply with the actual improvements or changes that have been introduced into the theory or practice of surgery, given under the sanction of the British Medical Association, would be far preferable to, although it would not take the place of, the crude mass of heterogeneous materials offered for our assimilation, through the press, every six months. But, although I thus differ from them in this matter, I shall on the present occasion so far follow their example as to confine myself to one subject, which I hope may be of practical interest to the society.

At the annual meeting of the Bath and Bristol Branch, in the year 1857, when I had the honour of giving the President's address, among other topics I brought forward the subject of the treatment of *Carbuncle*; and I wish now to complete what I then briefly alluded to.

Those of my hearers who imagine that the disease has been thoroughly disposed of already, and that its pathology is settled, and its treatment well understood, will be surprised to hear that in both these respects very different, if not opposite, doctrines have been broached by surgical writers of no ordinary repute during the last few years; and these opinions I must bring forward in order to justify my choice of a subject; which, however, I have been principally led to make because the question is of an eminently practical nature; because I believe that the ordinarily received treatment, as practised by most surgeons, and as taught in our schools and surgical works, is not the right treatment; and because I think that a change in this respect will be followed, among other advantages, by a greatly lessened mortality.

I offer no claim to novelty or originality in the views I have to bring forward, for the priority belongs in many particulars to others; but I have tested them in practice, and have the fullest conviction, founded on some experience, that they are established on the firm basis of theoretical and practical truth; and I hope to prove that the plan of treatment I am about to advocate is, in every particular, in strict accordance with a true view of the pathology of the disease.

Increase in Frequency. Carbuncle is undoubtedly becoming more and more frequent in this country; and there is good reason for believing that very long ago, although not unknown, it was very rare even in this simple form of which I am speaking; as distinguished from that fatal form of carbuncular inflammation known as the malignant pustule, which has been so fully disposed of last year by my colleague, Dr. Budd. The two diseases are essentially different; malignant pustule occurring always on exposed parts of the body, and arising from external causes, namely, direct inoculation with poisonous matter; while carbuncle arises generally from internal causes, and has its usual habitat on covered parts. In most of the old books on surgery, reference is made to carbuncle; but it was evidently a rare disease. The early descriptions of it were generally accurate, and its constitutional symptoms and dangers were more dreaded than they are now. Of the number of cases in proportion to the population, or to other diseases, there is no record in these old writers. The late Mr. Lloyd, who was for many years a colleague of Abernethy, said in one of his clinical lectures, that in his earlier professional days, boils and carbuncles were almost unknown.

The following numbers of registered deaths from carbuncle, quoted from the reports of the Registrar-General, are sufficient to shew that the mortality from this cause is on the increase. In the year 1842 forty deaths in all England were registered, in the proportion of twenty-nine males to eleven females; and in the nine years from 1847 to 1855 the numbers were as follow:

Year.	Males.	Females.	Total.
1847.....	50.....	27.....	77
1848.....	58.....	33.....	91
1849.....	64.....	17.....	81
1850.....	102.....	32.....	134
1851.....	112.....	49.....	161
1852.....	167.....	66.....	233
1853.....	190.....	62.....	252
1854.....	218.....	82.....	300
1855.....	177.....	78.....	255

In other words, there were six times as many deaths from this cause in 1855 as in 1842. The mortality has also been given in another form, viz.: in 1851, nine died of carbuncle out of every million persons; in 1852, thirteen; in 1853, fourteen; in 1854, sixteen; in 1855, fourteen. From these numbers we may also conclude that many more men are attacked than women; the proportion of deaths being five men to

every two women in the nine years mentioned above, when no less than *one thousand one hundred and thirty-eight* men died; the total mortality being *one thousand five hundred and eighty-four*.

There is reason to believe that it is relatively more fatal in men than in women, partly because among the poorer classes men are less able to give way to the disease, and submit to the loss of time necessary for its early treatment; and partly because of the more intemperate habits of many men who are attacked by it. The harder and less vascular skin of the men also causes it to spread more extensively in the subcutaneous tissues before the salutary central sloughing of the cutis takes place.

I have no opportunity of giving the proportions of deaths in every hundred cases of carbuncle, and without such information it is impossible to know the entire number of cases; but it must undoubtedly amount to many thousands annually; and if nearly three hundred die, a still larger number must have narrow escapes of their lives, with more or less local mischief or damage to the general health.

This increase in the number of cases seems to prove that continued changes are taking place in the maladies we have to treat, and that the term "change in the type of disease" does not deserve all the obloquy thrown upon it in the late controversy between the supporters of the alcoholic treatment, and their opponents of the old antiphlogistic school.

Period of Life. The malady in question is one of the middle and advanced periods of life. It is very rare below thirty-five years of age, and most frequent from forty-five to fifty-five. I have had several patients beyond eighty years of age, all of whom have recovered; and the deaths of some few children from this cause are registered every year. I have never seen it in a young child. The same amount of local inflammation in the looser and more vascular tissues of the young subject, in the great majority of cases, would produce abscess, or perhaps diffuse phlegmon, or phlegmonous erysipelas, and not the circumscribed induration known as carbuncle.

Causes. Among the occasional causes of carbuncle must be named the application of blisters, irritating plaisters, and liniments, which will produce the disease in certain low states of the health, but not in others; whilst the internal or predisposing causes are weakness of circulation arising from long illness, or organic disease, especially of the kidneys, and mental distress or old age; in which cases it may apparently arise independently of any local irritant. Some writers have even attributed it to the effect of diseased meat, or diseased wheat; but this is very improbable. It is seen sometimes in men who have been over-fed, and have become plethoric; but more frequently in the opposite condition of the system. I believe that in the majority of cases there is a local cause; and I look upon the disease very much as a local one, if any disorder arising spontaneously can ever be so termed.

Some few experiments as to the possibility of producing the disease by inoculation with pus from a carbuncle, have been made by Dr. Laycock, and they afforded negative results. This does not appear to be a mode of inquiry which we can follow out with much hope of good; and the proceeding itself, of course, cannot be without risk to the subjects of the experiments. We may, perhaps, infer from these results that there is nothing very actively specific in the secretion; and this is what we might have expected, for carbuncle is not like a fever or a blood-disease, or an eruption from some general constitutional taint; and its previous existence in no way promises immunity from future attacks.

Description. Carbuncle is a disease of the integuments of the body, involving the skin and superficial

fascia. Its usual seat is in the back or the neck, occasionally on the limbs; but almost always on one of the *extensor* surfaces of the body, where the skin and subcutaneous cellular membrane are thicker and harder and less vascular than on the *flexor* surfaces. I have not unfrequently seen it on the head, neck, back, nates, the back of the arm and forearm, the dorsum of the hand, and the front of the thigh; but scarcely ever on a flexor surface. A surgical friend, who has had the largest field of observation in this neighbourhood for many years, has informed me that he had one case in a lady, where the disease was seated on the abdomen, and proved fatal by producing peritoneal inflammation.

Mr. Syme says that it affects the skin only, and is not subcutaneous (*Lancet*, March 8, 1856); and the late Mr. Lloyd, of Bartholomew's, agreed with him. On the other hand, Dr. Collis, of Dublin (*Dublin Quarterly Journal*, August 1859), considers the essence of the disease to be an inflammation of the fascia; and between these, the two extremes, we have the opinion of the majority, that it is a cellululo-cutaneous disease. As the former authors recommend very long incisions; and their opponents make them very deep, so that the fascia be divided as far as the skin; and as the believers in the *via media* sometimes practise one kind of incision, and sometimes another, and sometimes none; and as all found their mode of treatment on their own particular views of the pathology, it becomes a matter of importance, especially to the patient, to decide the question, and, if possible, to set it at rest.

If I trouble you with a brief account of the origin and progress of a carbuncle, it will not be with the idea of telling you anything that you are not as well acquainted with as myself; but to remind you of some points which will assist us in understanding its true nature, and the effects of remedies.

Carbuncle begins like a boil, with a flattened surface and extended base; and is, I believe, from the beginning, in this respect different from the ordinary boil. The point is red, and sometimes even contains a minute drop of pus; but this is under the cuticle, secreted by the skin, and quite distinct from the pus afterwards found underneath the whole thickness of the skin. From this small point the morbid action extends rapidly in a completely circular form; and, if left to itself, attains in a few days considerable size; the hardness and tumour-like appearance being quite disproportioned to the affection of the skin, which, except in the central point, appears to be altogether secondary. By the time the disease has attained the size of a crown-piece, the skin has become livid and dusky; but without any feeling of fluctuation, or the so-called "boggy" state peculiar to the earlier steps of diffuse phlegmon, or the latter stages of carbuncle itself.

After a period of time varying from seven to ten days or a fortnight, the livid skin begins to give way in one or two points near the centre, and these increase in number every day. From the apertures thus formed some white solid matter protrudes, and subsequently they give vent to some reddish and very thick purulent secretion; indicating that the subcutaneous tissue has lost its vitality, and that, partly from the tension, and partly because the vessels supplying it have been cut off, the centre of the skin is about to slough. When this takes place, and there is a patch of dead skin as large as half-a-crown in the middle of the carbuncle, the progress of the circular induration ceases, and the redness becomes more circumscribed. Under favourable circumstances, in a case of this kind, the pus finds its way through the slough and at points in its circumference, and the process of separation is slowly completed; a white mass with a very peculiar odour being gradually turned out, leaving a granular surface, which nature is generally competent to heal.

When the death of the skin is retarded, the carbuncle, on the other hand, spreads with more rapidity, and may attain a very large size, extending even across the entire back, or neck, or whatever part it may have fixed itself on; and I believe that this extension of the disease is in a great measure a mechanical process, the resistance of the skin being sufficient to force the morbid secretion on every side into the spaces of the areolar tissue, where it sets up a similar destructive action. If the formation of these morbid products be still further encouraged by warmth and moisture applied externally in the form of poultices, and by the indiscreet use of internal stimulants, the growth is still more rapid and extensive; and, before the natural relief takes place by a free sloughing of the skin in the centre, a very formidable mass of disease results. The entire subcutaneous cellular membrane, with any adipose tissue that exists in the part, is killed by the pressure and inflammation, and dies as far down as the deep fascia; and the functions of the anastomosing capillaries and nerves of the skin are ultimately destroyed.

The slough which is turned out is of a very peculiar structure, consisting of thick and white cutis, cellular membrane, and fat, the dead matter branching out underneath as far as the circumference of the indurated mass; and, in addition to this, there is a considerable amount of puriform secretion and coagulable lymph filling up all the interstices, and whitening the tissues, which have for many days been macerated in it. Some of the soft white matter extruded from an open carbuncle bears much resemblance to the semitransparent and very soft granular tissue deposited around diseased joints and the cancellous parts of bones.

The smell of the slough is also peculiar, and very difficult to describe, being altogether different from the well known odour of putrid dead animal matter; and this smell is due to the secretion, which seems to be a living fluid teeming with cells, rapidly multiplying, and preserving, to a certain extent, the solid parts from undergoing the ordinary decomposition.

Microscopic Examination. The microscopic examination of the protruded mass is of interest. The fluid part is undoubtedly pus, with cells well marked and of regular form; and among them, in very varied numbers, are to be seen the smaller and still more regularly formed blood-corpuscles.

The solid matter is composed of the natural tissues of the part, modified by the disease. The harder superficial portion, white, thick, and tough, shows here and there the follicles of the skin. The deeper shreds of hard tissue, which often keep the slough in its place for a long time, are the cellular membrane soaked in pus, and exhibiting all its various elements, which have become very distinct. We see ordinary straight fibre of considerable length, involving within its meshes the cells of pus, and probably lymph, or so-called fibrinous exudation, to which some of the induration peculiar to the disease is due; and we have very numerous small portions of elastic fibre, curved into all kinds of shapes, but all very short; and we have also fat-cells of various forms and sizes, some separate and clear, and highly refractive, and others filled with a dark yellowish-brown matter, which is the fat in a crystalline state.

The addition of liquor potassæ has a very marked effect on the whole. The blood and pus are converted, of course, into a clear gelatinous mass, adherent to the glass like thick mucilage, and losing all appearance of definite structure, but disappearing in solution by the use of a large quantity of the alkali. The residue shows the straight and elastic fibre with wonderful distinctness; the latter being a tangled mesh of bright hard fibres, easily separable from one another. A portion of the slough, which has been

shaken in a small quantity of liquor potassæ, loses the greater part of its bulk, and scarcely any solid matter except white and yellow fibre remains.

I have treated a firm and solid slough of considerable size, which had been separated from a carbuncle by the natural process, and without any aid by treatment, with caustic alkali, and have found that the whole of it disappeared in solution except a few shreds of fibre. This complete disintegration (for so it might be called) of this mass of dead tissue by the potash, was to me a most satisfactory experiment, and I shall have to make some reference to it in the latter part of my paper.

When the slough has completely come away, and only a granulating sore with flattened edges remains, the resulting gap to be repaired varies, partly according to the size of the original disease, but more especially according to the mode of treatment pursued, as I shall presently show. In general terms, I may say that the healing process is tolerably rapid, and the resulting scar is comparatively small, and seldom productive of any inconvenience.*

General Symptoms. The general symptoms are not in proportion to the extent and severity of the local disease. The patient feels pain, but the amount of it is very different in different cases. In the lower part of the back it is generally greater than in the case of a carbuncle of corresponding size in the upper part; and the cutaneous nerves being cut off with the vessels, a large livid mass may often be pressed and manipulated freely without producing more than a moderate degree of uneasiness. In other instances, the pain is described as if a heavy and hot coal were being pressed into the flesh, justifying the name anthrax, which is given to the disease.

There is little antecedent fever, but the affection of the general system progresses *pari passu* with the local disease, as in erysipelas; if but little of the skin is affected, the patient suffers but little; if a large surface is attacked, the symptoms increase also: and, on the other hand, if you check or control the local disease, you destroy the general symptoms. In this respect erysipelas differs essentially from the other exanthemata, when the risk of the patient bears but little relation to the amount of cutaneous eruption.

A moderate amount of fever is often present, indicated by a quickened pulse, sleeplessness, white tongue, loss of appetite, and frequently constipation; but these symptoms may be referred more to the presence of a troublesome and perhaps painful local disease, than to any specific poisoning of the blood. When the slough is formed, and is becoming properly separated, the fever ceases; and after this period the constitutional symptoms depend simply on the drain on the patient's vital resources required for the completion of the sloughing process, and on the exhaustion produced by copious discharge.

To relieve these different states, of course different plans of treatment are available. It must be admitted, at the same time, that when nothing but a healthy and healing granular surface remains, the feeling of renewed vigour experienced by the patient shows that the system is relieved of something deleterious, and that, in the words of some of the olden writers, his body has been purged of some of its evil humours.

Causes of Mortality. Before coming to the treatment, it will be necessary to advert to the causes of death, of which the three chief are: 1. Exhaustion of

* Since writing the above, a man has come under my care complaining of a hardened and contracting cicatrix on the back of the neck on one side, in whom a large carbuncle had been treated by incision in the usual way two years before, and the scar which remained had been of continually increasing trouble to him, having the hardness and peculiar contractility of a cicatrix after a burn of the fourth degree.

the patient's powers of life by excessive and long continued discharge and sloughing; 2. Hæmorrhage after the incision of the diseased mass, generally recommended and practised; and 3. The constitutional disorder known as pyæmia. To these may be added the occasional extension of the morbid process to the deeper and more important tissues, which can only occur when the disease is on the abdomen or front of the chest, a very rare contingency, or when the membranes of the brain are attacked, as in erysipelas, should the head be the seat of the carbuncle; and, lastly, deaths have occurred from tetanus.

1. The first cause, or Exhaustion, is seen when a large and neglected carbuncle has sloughed, and a vast cavity remains extending from under the detached skin, from which great quantities of pus and shreds of dead tissue are daily discharged, until the patient's life is worn out, and he can no longer assimilate sufficient food to replace the constant loss of material, much less to repair the chasm which the disease has made in the body.

2. Death from Hæmorrhage does not occur immediately; but sometimes the flow from the divided capillaries is so great and continued, that there is not sufficient strength left to hold out in the subsequent stages, for the completion of which, in a satisfactory way, a greater amount of vital power is necessary than in the first or inflammatory stage. It is seldom that any vessel of large or even moderate size is divided.

3. I believe that Pyæmia is the most frequent cause of death. The rigors and general depression, with other signs of poisoning of the system, which I need not enter into before such an audience as the present, will raise an alarm and anxiety in the surgeon's mind which is only likely to end at the same time as the patient's life, for the result is almost inevitably a fatal one. There is a peculiar and deceptive hopefulness about patients suffering from pyæmia, from whatever local mischief it arises, which is well marked in these fatal cases of pyæmia, and which has been noticed by other surgeons besides myself. I believe that this terrible accident of purulent infection occurs from the direct introduction of pus into the veins of the part, and that some cause which produces a flow of blood, or a breach of continuity in the living parts, is a necessary condition of its origin.

With respect to the deaths from tetanus, I think that interference with the sloughs by cutting or traction, before nature has separated them, may probably lead to the onset of this fearful addition to the patient's risks; for I have noticed in other cases of tetanus, that it has speedily followed the removal of partially separated bone, or a shred of half-dead fibrous tissue from a crushed finger or toe, when this simple operation had been performed merely to save the patient's time.

Treatment of Carbuncle. I now come to the treatment of carbuncle, the last and most important part of my paper, on which I lay the greatest stress; for it is almost the only part connected with the disease which really allows of any difference of opinion, and the remarks which I have to make will relate almost exclusively to its local management, with a very brief reference to its general treatment.

When we consider that nearly sixteen hundred deaths occurred in nine years, and that they amounted to three hundred in one single year, and that the vast majority of these were adult men but little beyond the prime of life, and that if the disease had been early and properly treated most of them might have been saved, we must admit that the subject is one of high importance, and not unworthy of the consideration of our Society, made up as it is of practical and busy men. To say that with an altered plan of treatment none would die, would be to borrow the words of the quacks

and advertising doctors, real or pretended; and with them I have no desire to be classed.

It seems to be accepted by all who have written on the subject, that when the carbuncle has once formed, it cannot be cured without giving exit to a slough or core; and the indications are, therefore, to stop the progress of the complaint, and to expedite the separation of the dead tissue. In a work on surgery, called *Several Chirurgical Treatises*, published in 1676, by Richard Wiseman, Sergeant-Chirurgion to King Charles II, to whose most sacred majesty he dedicated his "Chirurgical Labours", the author says that too much bleeding is to be avoided, that incision may be made, and this is the particular treatment which he recommends; but he adds that some surgeons advise caustics, or the actual cautery.

This surgeon of the old times has written a wonderfully entertaining book, for a surgical work, and, in his remarks about carbuncle and several other subjects, was much in advance of his times. He gives numerous cases of severe gunshot wounds, and other injuries, which occurred in the battle of Worcester and the other fights between the Cavaliers and Roundheads. He was at the same time a firm believer in the cure of scrofula by the king's touch.*

Another writer of the seventeenth century, Lazarus Riviera, who published a series of surgical cases, strongly recommended caustics.

For the last fifty years the approved treatment has been by what is called the crucial incision, which is to be made boldly and freely through all the indurated tissues, across from one edge of the red circumference to the other, and again at right angles, so as to free the slough and destroy the inflammation; and it must be allowed, that, in the great majority of cases, this plan has been successful. Other means have from time to time been recommended, and some very recently, viz., no incision, but poultices, or iodine (Dr. Rigby, *Med. Times and Gazette*, vol. ii, 1858); or turpentine (Theilman, *Med. Times and Gazette*, Sept. 29, 1855); or belladonna (Mr. Cooke, *Med. Times and Gazette*, Sept. 29, 1855); or white paint, or a cupping-glass, or watery extract of opium (Mr. Shillito, *Med. Times and Gazette*, vol. i, 1858); or opium plaster (Gutzeit, *Dublin Hospital Gazette*, April 1, 1859); or subcutaneous incisions (Mr. French, *BRITISH MED. JOURNAL*, vol. ii, 1862, p. 52); or lead plaster (Mr. Hunt, *ASSOCIATION MED. JOURNAL*, July, 1853); or acid nitrate of mercury (Mr. Startin); or some other novelty, none of which have, I believe, survived the period of their first publication in the journals.

The caustic plan has been revived, and with the sanction of well-known surgical names. Dr. Physick, of Philadelphia, seems to have been the first to bring it once more prominently before the profession; and in May, 1857, the present Mr. B. Travers published (*Lancet*, vol. i, 1857) two or three very interesting and convincing papers on the subject, and it was then that my attention was first drawn to the caustic treatment, before which time I had invariably marked a deep cross on the carbuncles, as my neighbours did. In Nov. 1856, Mr. Higginbottom published (*Lancet*,

* Although the following extract has no reference to my subject, it will prove that the author anticipated the treatment of the present day in other subjects besides carbuncle. Speaking of hernia, he says—"If, after the forementioned endeavours to reduce the hernia (whether it were by reason it had been too long relaxed, and the excrements grown hard and dry in the intestine, or that they were sufficed with crudities, or inflamed by the constriction in the production, etc.), you do not succeed, you ought to consider what the impediment is, and proceed accordingly to let blood, purge or vomit, or put him into a semicupium, keeping on his bag-truss the while; after which, he may, if occasion require, be carried to and fro on the back of a strong man with his head downwards, by which the prolapsed bowels are often reduced. Mr. Smith, the truss-maker, told me he had made such an engine, by which he set them on their heads, and thereby reduced many, which could not otherwise be relieved."

vol. ii, 1856) a short but very comprehensive little article, recommending a plan very similar to that which I am about to advocate. Mr. Syme, on the other side of the question, says, in his ordinary very distinct mode of expression, "the application of caustic is the extreme of absurdity."

I must, at this point, proclaim myself an unflinching advocate of the caustic plan of treatment in a slightly modified form, and a strenuous opponent of the crucial incision. The caustic to be preferred is the stick of potassa fusa, and it is to be used freely but carefully in the following way. In whatever stage the carbuncle is, the potash is to be applied and rubbed in freely in the centre, until an eschar is fully formed. In the earlier stages, if the skin is still unbroken, it must be used for several minutes, until the death of the central portion is ensured, and the size of the slough to be made varies of course according to the size of the carbuncle. In general terms, the diameter of the skin to be destroyed should be a fourth, or even a third, of the diameter of the indurated and inflamed mass. This is generally sufficient to stop the progress of the disease: but it is far better, at the same time, to use some application of an opposite nature to the circumference, and for this purpose the nitrate of silver in substance, or in strong solution of two scruples to an ounce, may be used, according to Mr. Higginbottom's plan, or, as I prefer it, a strong solution of iodine in collodion, which has a very excellent effect in destroying the erysipelatous element of the disease. I believe that my father was the first to use a strong tincture of iodine for erysipelas of the head and face; and the *pigmentum iodinii* of the Bristol Royal Infirmary, made by the solution of forty grains of iodine in an ounce of rectified spirit, has now come into general use in such cases.

We have lately added to our Pharmacopoeia here a "*Pigmentum iodinii c. collodio*," made with a scruple each of iodine and iodide of potassium to the ounce of collodion, and with very favourable results, for erysipelas, whether idiopathic or following surgical operations; with the exception that, if used on the face, the eyelids must be left intact, for it causes so much contraction of the surface, that there is danger lest the patient should not be able to shut his eyes afterwards, and this accident I have seen before now.

Mr. Higginbottom, in his paper quoted above, speaks most truly of the nitrate of silver as a preservative, and the potash as a destructive agent, and seems to have found, as I have, that this fact is not sufficiently recognised or appreciated. The contraction of the collodion film acts very beneficially on the capillaries of the skin, and the particular effect of the iodine is more continued, because of the mechanical adhesion of the collodion to the surface. With this pigment the indurated part is to be daily painted, without waiting for the first layer to come away, and the relief from it after the use of the potash is very marked. Poulices are to be avoided altogether. A dressing of the resin ointment, mixed with an additional quantity of turpentine or some camphorated spirits, is to be used daily over the surface, and in most cases no change need be made until the patient is cured.

The other points in the treatment are the greatest attention to cleanliness in the dressings, and the removal of the discharges, which are easily ensured by warm bathing and cotton wool; and the strictest care is necessary not to interfere with the slough by any dragging or cutting, so as to cause an effusion of blood.

To a carbuncle which has begun to slough by the central apertures, the caustic is to be applied in the same way, and the effect is to turn the sloughing skin into a gelatinous black mass, which melts away and is

gradually removed with the dressings, the iodised collodion pigment being applied around the circumference as before. By this plan of treatment the slough certainly separates earlier than by the incision, and comes away in a half dissolved state; and the disease being checked at the margin, contraction of the entire sore goes on from the granulating process within, frequently for many days before the more solid part of the eschar has been quite thrown off from the living tissues.

The chief advantages which we claim for this plan of treatment, as contrasted with the incision, are two in number; viz., firstly, and principally, the safety of the patient; and, secondly, the rapidity of the cure.

1. *The patient's safety*; the proofs of which we may conveniently examine under the same heads as those used before in describing the perils of the disease, or the causes of mortality. The risk of hæmorrhage, from which some patients die, is altogether done away with. At the time of the application of the caustic, when the skin is beginning to slough, a few drops of blood escape sometimes, but they are at once dissolved by the caustic, and this is the only blood shed in the progress of the case; and, if the potash is applied still earlier in the treatment, not one drop is lost, and this is no slight advantage.

Exhaustion, as a cause of death, is rendered much less probable, partly because no blood is lost, but principally because we imitate and support nature's efforts by making an artificial slough, of comparatively small size, and the suppuration is only what is required for the separation of the dead skin and cellular membrane, the further secretion being very much lessened by the early loosening of the slough and the application of the iodine paint.

Thirdly, I believe that pyæmia or purulent infection, the most frequent cause of death and the most hopeless complication, will not occur by this method of treating the disease.

I have already stated my conviction that pus finds its way into the open mouths of the divided vessels, and thus the system is contaminated. A cut through the hard, brawny tissues must leave many vessels held open mechanically, in the midst of the suppurating and sloughing membranes, in the state of all others best adapted to cause the entrance of the poison.

The only two fatal cases of carbuncle which I have been ever called to, were of this nature. Both were clergymen, middle-aged, well nourished, and in fair health at first; and in both the treatment had been by incision. In one the sloughing process was never completed; in the other the wound had even healed, and become firm, and the patient sank from numerous extensive formations of pus in the joints and cellular membrane, in various parts of the body.

A medical friend of very large experience in India, where the natives, soldiers, and others, were always under his care, and where carbuncle is a very common disease, informed me some years ago that he had long given up the incision because of the mortality from pyæmia, and that his treatment has been much more successful since.

Seiche treated eleven patients in the ordinary way with incision, and six died; five of them from pyæmia. He treated twelve with collodion, and all recovered.*

The risk of death by the extension of the inflammation to the deeper and more important structures of the body, or by tetanus, is nearly the same whatever plan of treatment is adopted; but these dangers are not great, because of the extreme rareness of these accidental complications. Whatever difference there

* *Year-Book of Medicine and Surgery*, 1862, page 165. The mortality was excessive according to this statement—six dying out of twenty-three. The mere application of collodion seems an inefficient remedy.

is must be in favour of the caustic method, because the slough is more speedily loosened.

2. *The Rapidity of the Cure.* The second advantage which I claim for the caustic, viz., shortening of the time required for the cure, although not equal in importance to the safety of the patient's life, is nevertheless no slight one. It is not quite so easily capable of absolute proof; but I have as little doubt about it as about the others.

The explanation of the case is sufficiently easy. Important time is saved at first, because the slough is formed more quickly. A cut will let free the tissues, and check the inflammation and the progress of the disease at the circumference; but whether the skin has sloughed already or not, the central part will, in almost every instance, die, and have to come away; and the special chemical effect of strong caustic alkali upon the tissues of the part, in whatever state they may be, whether living or dead, saves the patient's time in another way. As I have before noticed, the potash is a powerful solvent of the tissues: pus, blood, and the gelatine of the skin and the fat, are liquefied and dissolved by it, if used in the concentrated form of potassa fusa; and the slough already formed and the skin which is about to give way become semifluid, and are washed away with the secretion; the solid elements remaining being the white and yellow fibre of the skin and areolar tissue, with pus, coagulated lymph, and some of the cellular membrane and fat which the caustic has not been able to reach.

It is important to remember that the action of the remedy upon the part to which it is applied, is chemical entirely; and that the good effect upon the rest of the disease, is from the early formation of a slough which is easily broken down in its substance.

The resulting sore is undoubtedly much smaller by this treatment. After incision, the quadrants of skin partly slough, and are partly retracted, so that ultimately the sore is circular, with a diameter of the length of the cuts; whereas by the potash and iodine plan the centre gives way, and all the rest of the skin retains its vitality and its former position; and even though the edges appear at first to be undermined, by the time the slough has come away the greater part is generally filled up by granulations; and, as I have before said, contraction of the whole sore has commenced.

To complete my remarks, I must shortly allude to the general treatment. The indiscriminate use of stimulating food and drink is to be avoided. Some gentle aperients are required at first; and afterwards the medicine best suited for the majority of cases, is a mixture of ten grains of chlorate of potash with ten minims of the tincture of the sesquichloride of iron. Food in a nutritious and fluid form is required, and occasionally wine or beer, if the discharge is very free, and the pulse seems to require it; and if there is much weakness with sweating, quinine and acid, and perhaps an opiate at night.

Mr. Higginbottom, whose name deserves all honour, for he is a staunch and honest opponent of the vices of the alcoholic treatment, makes the remarkable, and very satisfactory statement that he has never prescribed alcohol in any form for this malady, and that he never saw a fatal case.

The question of pain will arise, and may with some be an element in the determination as to the plan of treatment; but it has no weight at all compared with the question of the patient's safety. When a large surface is touched with the caustic freely, there is sometimes much pain; but in those cases a long incision would be necessary, and patients dread the caustic much less than the knife; and I have used the freezing mixture of pounded ice and salt, applied for five minutes to the surface, with the effect of almost de-

stroying the feeling without interfering with the chemical action of the alkali. The advantage in this respect is all in favour of the caustic; and the freedom from pain which the patient experiences, as soon as the first burning has passed, is very marked.

I have introduced no accounts of cases, although I have treated many in each way; for their usual progress may be satisfactorily described in general terms.

In conclusion. Although the plan is not new, and although it has been urged, as I have before said, by higher names than my own, and although its advantages are so striking and intelligible, it is very clear that the idea has not taken root effectually, as it ought to have done; and no opportunity could offer itself more likely to bring it prominently before the profession, than that which I now take of making it the subject of the surgical address before this assembly.

I am not without hope that I shall have convinced some of my hearers, and that they will be induced to give it due consideration and a fair trial; and with this I shall be well content. And this hope must be my justification for bringing so trite a subject before you. I may be allowed to remind my hearers that ten years ago I had the honour of reading the Surgical Address at a meeting of our Association at Swansea; and in those earlier days the difficulties of the situation were less, and more time was available in the midst of professional duties, than at present, when few quiet hours are to be obtained. And if my task has been performed now by snatches, or too quickly, or, it may be thought, incompletely, I have at any rate been able to speak on this occasion with the authority of more experience; and I will trust myself and my essay confidently to the kind consideration, and, I hope, friendly criticism of my hearers.

DECIMAL MEASURES. Out of the fact that uncivilised man reckons with his fingers, and has 10 fingers to reckon with, has arisen a numeral system, or machinery for counting with the number 10 at the bottom of all its arrangements. Every time we multiply by 10, we add simply a round 0, —1, 10, 100, 1,000, etc. To divide by 10 we have only to cut off the last figure; to divide by 100 we have only to cut off the two last figures, calling any surplus they may represent, so many parts of a tenth or hundredth; whereas in the arithmetic of everyday life, as it now stands, we are continually working sums out by an act of calculation resting upon every figure; also, if we are duly careful, running over each of our calculations twice, as safeguard against error, and thereupon, if we find error, running over it all a third time to ascertain which of the two differing calculations was the right one. All this trouble we give ourselves artificially, by using measures of value, weight, and capacity that are not in accord with the method of counting. Let us measure and weigh by tens, as we count by tens, and we may rub every trace of vulgar fractions off the slates of our national scholars, and set free for more useful knowledge half the time now spent in learning by heart confused or complex tables, and in the practice of long arithmetical processes that no longer touch on the real business of life. We do not this only. France and other countries of Europe have preceded us, Russia and others having declared themselves ready to follow if we follow the good example that has been already set, the whole mass of waste labour in conversion of foreign into English or English into foreign measures will be done away with, and a great hindrance to international commerce will be destroyed. Between French and English houses great mistakes are sometimes made in ordering and executing orders, and where those mistakes have not been felt there is very often enough doubt and hesitation about measures of quantity to turn the scale against relations with the stranger. (*All the Year Round.*)

British Medical Journal.

SATURDAY, AUGUST 8TH, 1863.

THE ANNUAL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association has been held at the Victoria Rooms, Clifton, on Wednesday, Thursday, and Friday of the present week, under the presidency of Dr. Symonds.

The entire account of the proceedings will be published next week; in the meantime, however, we give a brief outline of what took place at the opening meeting on Wednesday.

On that day, the Members, to the number of about two hundred, met and heard a valedictory address from the able retiring President, Dr. Burrows; who rightly alluded in terms of congratulation to the success which had attended the London meeting of last year, both in regard to its scientific, professional, and social effects.

Dr. Symonds then took the chair as President, and delivered a highly philosophical address, which our readers will find published in full as the first article in this day's number.

The Report of Council was then read by the General Secretary, Dr. Williams. In consequence of the increasing pressure of his professional engagements, Dr. Williams intimated, through the Council Report, his desire to resign his office. The report, after some remarks from Mr. Steele, was passed.

A vote of thanks was passed to Dr. Melson and Dr. Hadley, the auditors of the Association; and they were re-appointed.

A vote, thanking Dr. Burrows for the performance of his duties as President of the Association, and appointing him a Vice-President, was carried by acclamation, and acknowledged by Dr. Burrows.

Mr. Watkin Williams was proposed as the successor of Dr. Williams of Worcester in the post of General Secretary.

Dr. Richardson then brought forward his proposal for the appointment of a Committee to consider the possibility of establishing a Medical Provident Fund. The motion was seconded by Mr. Daniell, and carried.

The alterations in the laws, of which notice had been given by Dr. Markham, were withdrawn.

THE MEDICAL COUNCIL AND REPORTERS.

As our readers are aware, the question, "that reporters be admitted to the meetings of the General Medical Council," has been put, discussed, and negatived by that body. But the fact that eleven votes were given for and eleven against the motion—the

President negativing by his casting vote—shows that a considerable difference of opinion in Council prevails on the subject. If the Council have erred on this occasion, they have, at all events, erred on the safe side. The vote, as it now stands, can any day be amended, which it could not have been, had it gone the other way. We are inclined to think, however, that on another occasion, should the question be again brought forward, the majority for exclusion of reporters will be greater than it now is. The amendment of Sir C. Hastings—that reporters should be admitted on those occasions when the Council was acting judicially—seems reasonable and just. On the general question, we must say that we have not yet heard anything like a satisfactory reason given why reporters should be admitted; nor do we exactly see what service they could render to the profession by their presence. It has been, indeed, suggested to us by a member of Council, that they would, at all events, furnish up a good deal of matter for the journals which would *amuse* the profession. Of this we have no doubt; nor do we doubt also that we should in this way also be furnished from time to time with sketches of "personal explanations", "rejoinders" and "replications", and occasional "sets to" between impassioned and fervent members of Council; but we certainly very much doubt whether reports of this character would add much either to the reputation of the Council or to the real edification or advantage of the profession at large. Of course, the popular view of the case would be, that the whole proceedings of the Council should be bared to the profession and the public; and we would assuredly recommend this view of it, if we could see that any kind of good could result therefrom. Those who are most fervent in supporting the admission of reporters do not show any good reason in favour of their views; they merely say that these things ought to be all done openly.

But the objections against the admission of reporters are assuredly not small. The oratorical portion of the Medical Council, with the public for their audience, would certainly address themselves to the public through the press. The proceedings of the Council would be prolonged through displays of popular eloquence, and their expenses thereby greatly increased. Popularity-seeking councilmen, again, would attempt to further their popularity outside the Council by proving themselves liberals and patriots within the Council. Then, again, the Council would run the risk of losing that special character which we should wish, above all, to see it retain—viz., of calmness, deliberation, and judicial solemnity. We should be very sorry to see it degenerate into a discussion forum, or even an upper-class kind of debating society.

It must not be forgotten, also, that there is no kind of concealment of the work done by the Council.

The whole of their proceedings—of the actual doings—are printed and published. We believe that the opinion of Sir Benjamin Brodie was decidedly adverse to the admission of reporters; and we are willing to confess that his opinion in such a case impresses us as worthy of serious attention. He, no doubt, considered that the men who sit in that Council are not raw apprentices to medical politics—are men who have made up their minds and are fully instructed before entering the Council on all matters which interest the profession; and have no need of the eloquence of their colleagues to stir up their feelings, nor of their long speeches to repeat well known facts and the usual wearying repetitions and platitudes of general debate.

However, if it can reasonably be shown that any great benefits would result from this publication, or that the good attending publication would counterbalance the evils above mentioned which may result therefrom, we will willingly go in for the reporters-admission proposition. But if the chief benefit to be derived therefrom is the delivering of dreary lectures, the dishing up in the journals of spicy speeches and of eloquent popular and patriotic dissertations, we think the reporters are better excluded. Such spicy speeches would, of course, afford capital food for the journals; and, served up with an occasional dash of personality, a small taste of scandal, and a few personal explanations, would undoubtedly enliven the dry reports of the Council's proceedings. Whether they would add anything to those somewhat obsolete or compromised articles called "the honour and dignity of the profession", we must venture to doubt until better informed.

THE WEEK.

MR. BOTTOMLEY's correction of the "misstatements made in the JOURNAL respecting his views upon vaccination" does not show any significant error in the statements there made on the subject. If we were wrong in saying that Mr. Bottomley did not attend the meeting of the Board of Guardians at Croydon on the invitation of the Chairman, then it must follow, we suppose, that Mr. Bottomley went there on his own invitation. We do not think this betters the case. Mr. Bottomley, again, denies that he said "doctors should work cheaply or for nothing". In answer to this, we must observe, that Mr. Bottomley was reported to have said that "he considered it to be the duty of all medical officers to vaccinate children brought to them without fee or reward". If he did say so—and he has not denied that he did—then we must repeat that this is surely equivalent to saying that doctors ought to do work for nothing. Mr. Bottomley's views about the duty of the legislature in the matter of vaccination may be all quite

true; but this is not the question here. What we objected to Mr. Bottomley was, that at a very critical discussion between medical men and Poor-law guardians, he put himself forward (in our opinion, quite wrongly) to defend the guardians, and in a way injurious to the interests of the profession. That Mr. Bottomley may have done all this from the best and most conscientious of motives, we will readily admit; but that he was wrong, the general sense and opinion of his medical brethren must have clearly shown him.

THE University of London have issued regulations respecting the degree of Master in Surgery, which it obtained the power of granting under its last charter. The first examination for the degree will take place in March 1864. There are, therefore, now two rivals sprung up to the College of Surgeons; viz., the College of Physicians and the London University.

It seems probable that the unjust treatment practised upon the medical officers of the army may meet with its appropriate result. There are, we understand, at present, only eight candidates who have entered their names for the competitive examination in the Medical Department of the army, which takes place in August, there being seventy-eight vacancies. Other signs there are that this branch of the service is becoming short-handed. For instance, we are told, that what with resignations, etc., the number of surgeons on duty is so reduced, that leave of absence is constantly refused, even to those who have returned to England with their regiments after long absence abroad.

OUR readers will find in the JOURNAL of May 30th, 1863, an article headed "Medico-clerical Prosecutions". It was an account of unfair treatment practised on Mr. White of Sherborne, as union medical officer. We then added, that Mr. White had determined to bring an action for libel against the clergyman concerned against him. This action has lately been tried; and the verdict is what is called an open one.

"The jury retired for an hour and twenty minutes, and then gave a verdict for the defendant; but at the same time they could not help expressing their regret that the defendant should have written to the Poor-law Board a letter liable to such uncharitable constructions against the plaintiff, but without costs."

DR. ROBERTSON fully sustains the character of the *Journal of Mental Science*. In the July number we find papers: from Professor Laycock, On the Naming and Classification of Mental Diseases and Defects; from Dr. Sankey, On Melancholia; and from Dr. J. C. Browne, On Homicidal Insanity. Reviews, also, we find in it of French treatises and German mono-

graphs touching mental affections. Dr. Arlidge gives the Quarterly Report on Foreign Psychological Literature; and Dr. Robertson, the editor, that on English Psychological Literature, besides excerpts from Asylum Reports, etc.

MR. CEELY of Aylesbury has been appointed by the Privy Council to investigate an outbreak of *typhus charbonneuse*, which has broken out in the neighbourhood of Swineshead, Lincolnshire.

THE current number of the *Quarterly Journal of Microscopical Sciences* contains some interesting physiological papers. Dr. Ciaccio of Naples describes the Distribution of the Nerves in the Cornea in Man and Animals. Dr. Roberts describes the Appearances of the Blood-corpuscles under the Influence of Magenta and Tannin. Besides these there are: Remarks on Light, by B. S. Proctor; Notes on Indian Desmidiæ, by Julian Hobson; Notes on the Colouring Matter of the Red Sea, by H. J. Carter; Descriptions of New and Rare Diatoms, by Dr. Greville; a translation from the German of Dr. Cohn, on the Contractile Filaments of the Cynareæ; etc.

THE medical profession in America is denounced by the *American Medical Times* as an "indolent profession." Our readers may be curious to know in what sense the charge is made. We, therefore, give them some of the words of the aforesaid respectable journal. Whether or not any of the negligent ways attributed to the American doctors can be fairly laid to the charge of any of our brethren in this country, we will leave to the consideration and the consciences of the readers of these lines. We will only venture to hint, that the lesson contained in them is worthy, in many respects, of consideration, even by ourselves.

"Every one interested in the welfare of medical science must have been struck, within the past year or two, with the growing inactivity of the profession as a body. The love for work by the great mass of the medical men seems to have been lost almost past redemption. No one can complain that the stimulus to exertion is not sufficient; for in every section of our country are to be found societies that are ready to invite discussion, and medical journals willing to open their columns to every one who is zealous in the cultivation of his science. Some of our best societies can scarcely get together a quorum; and many of the most valuable papers that are read before them almost utterly fail to wake up any interest or provoke any interchange of opinion. Too many there are who attend our societies, who have scarcely energy enough to listen more than ten or fifteen minutes to a memoir before their eyes are heavy, and they nestle themselves for a comfortable nap until the time for adjournment arrives. We must not shut our eyes to the fact, also, that most of the older and more influential members absent themselves for months at a time from scientific deliberations, and deprive those who really are interested in the pursuit of knowledge, of matured opinion and healthy counsel. A

certain character of meetings are always well attended; but this can, perhaps, be explained in the character of the refreshments which are to be served at the end. Again, if we look into medical literature, we can find still other proofs of a lack of vitality in scientific pursuits in the paucity of contributors to the different periodicals. With all the great resources afforded by large hospitals, dispensaries, and the like, what a comparatively small amount of material is collected therefrom to serve the common good. How few there are of those who enjoy unbounded opportunities for clinical experience that place the results of these labours upon record. There is no excuse for this. The never failing excuse, want of time, is too senseless a one to be at all considered. It is the lack of energy to turn spare time to account. We are compelled to make the mortifying statement that many of our most celebrated practitioners, especially in New York, who have almost grown grey in the service, have hardly made a single record of their doings. May posterity give them the deserving punishment by forgetting them. We have among us too few devoted students; too few who quietly, persistently, and untriflingly work for the 'very work's sake,' and who strive to give others the benefit of their labours. We are afraid, however, that we have to look for most of these among the rising generation, inasmuch as too many of the older members are past conversion."

Mr. Samuelson has read a paper to the French Academy of Sciences containing an account of micrographic examinations made by him of the air at Hull, Liverpool, Japan, Alexandria, Tunis, Peru, and Melbourne. In the air of all these places he finds present a greater or less quantity of corpuscles belonging to the three kingdoms, animal, vegetable, and mineral. The conditions under which the infusoria live, and the action exerted on them by physical agents, were the objects of his researches.

Urethrotomy has recently been much discussed in Paris and at Lyons. We read, as the result of the discussion at Lyons: "The operation of Mr. Syme has won the day; it has now its place marked out in the operative therapeutics of strictures; but this operation has its special indications and restrictions. It is not opposed (as some persons at first wished to make it appear) to dilatation, nor to scarification; but, on the contrary, it is to be resorted to when these other means of cure fail. And what the surgeon has now to do is to determine the precise limits within which its action should be confined. If urethrotomy is less frequently indicated than Mr. Syme seems to recommend, it is now shown by him to be much less dangerous than was generally supposed. Mr. Syme has been singularly lucky in his operations. Of 108 cases, he has lost only two. In France, the results of the operation have been much less brilliant."

Mr. Henry Lee's lectures on "Syphilitic Vaccination" have been translated into French by Dr. Baudot.

The Pharmaceutical Congress of France meets this year at Toulon, on the 17th, 18th, and 19th of August.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 3RD, 1863.

R. GREENHALGH, M.D., in the Chair.

CASE OF TUBAL GESTATION: DEATH. BY JOHN MARSHALL, ESQ. DESCRIPTION OF THE PARTS INVOLVED; WITH REMARKS. BY GRAILY HEWITT, M.D.

The patient was married, aged 27, and had had children. On March 31st, Mr. MARSHALL was called to see her, and found her suffering from vomiting, collapse, and severe pain in the abdomen. These symptoms continued for about twenty-four hours longer, at the end of which she died. At the time of the illness she was about two months advanced in pregnancy, and just before death she confessed to Mr. Marshall that she had taken medicine to procure abortion shortly before the illness supervened. After death large coagula of blood were found in the pelvis and abdomen. The uterus and appendages were submitted to Dr. Graily Hewitt for examination. The left Fallopian tube was distended to the size of a sausage, and contained coagula, together with the remains of the placental structures of an ovum. The tube had ruptured at the junction of the inner and middle thirds of its length, and coagula hung by a sort of pedicle from this opening. The placental mass was loosely attached to the Fallopian tube wall, and the walls of the tube were thickened and spongy at the point of placental attachment. The fœtus was not seen, and probably had escaped observation among the coagula in the pelvis. It appeared likely that the rupture of the tube was hastened by the taking of the abortifacient drugs; but under any circumstances rupture would probably soon have occurred, as it is usual in cases of Fallopian pregnancy for rupture to occur at or soon after the third month.

Dr. CLEVELAND thought the question whether surgery could be made available in cases of extrauterine gestation a most important one. It appeared to him that the only probability of success attending gastrotomy would lie in the formation of such an accurate diagnosis as would warrant the performance of the operation while the parts were, so to speak, in a quiescent state; but when rupture and extravasation into the peritoneal cavity had taken place, and the patient was found in a state of collapse, he could not see how, at such a time and under such circumstances, opening the abdomen was to prove of service.

Dr. GRAILY HEWITT had great doubts as to the practical feasibility of carrying into effect any operative measures for the relief of these cases of rupture in Fallopian pregnancy. The condition of the parts was peculiar, the number of blood-vessels to tie was considerable, and the condition of the uterus and its appendages wholly different from that present in cases where ovariectomy is practised safely. But this was not all. The chief obstacle lay in the difficulty of the diagnosis. In by far the majority of cases the circumstances do not enable us positively to determine on the diagnosis. It is not certain in many such cases even that pregnancy is present; and he believed very few practitioners would be willing to perform such an operation as opening the abdomen on what must, in most cases, be at best a presumption, that the case was one of the kind supposed. Periuterine hæmatocele he would mention as one of the conditions not rarely presenting symptoms very closely identical with those of rupture of an extrauterine pregnancy.

Mr. SPENCER WELLS said that if it were certain that a patient was dying from internal hæmorrhage owing to the rupture of the sac of a tubal pregnancy, he could see

no sort of difficulty in the way of a surgical operation. The Fallopian tube and vessels in the hard ligament would be divided and secured exactly as in every case of ovariectomy. The operation would be extremely simple; what the result would be was quite another question. Dr. G. Hewitt's observation of the stricture of the Fallopian tube in this case raised the question as to the date of the constriction. It could hardly have preceded impregnation, or the spermatozoa could not have passed from the uterus to the ovary. These contractions of the Fallopian tube were of greater importance than usually known. He (Mr. Wells) had recently seen a case of death after symptoms of acute pelvic peritonitis and obstinate vomiting; and it was found that apoplexy of the left ovary, and of the sub-peritoneal tissues around it, had depended upon closure of the Fallopian tube near the uterus by a small cyst, possibly the unimpregnated ovum of the preceding menstrual period.

Dr. GRAILY HEWITT said the facts of the case related warranted the belief that the stricture of the Fallopian tube led to the detention of the ovum in the tube. The canal might be sufficient to allow of the passage of spermatozoa, but not large enough to allow the ovum to pass. The passage of the ovum along the tube, it must be recollected, did not occur immediately after impregnation; and the turgescence of the uterus consequent on impregnation would tend to render a narrow Fallopian tube still narrower.

Dr. HICKS said Dr. Hewitt's description of this case agreed with his own observations. In the *Guy's Hospital Reports* would be found a case of tubal pregnancy which in its details agreed with this one in all particulars, and also another which corresponded to that of Dr. Greenhalgh. In both cases the villi of chorion were not involved in any way in any decidua structure, but merely applied to the surface with which they came in contact; a slight quantity of plastic matter seemed to assist in holding them together.

DYSMENORRHOEA AND STERILITY. BY R. GREENHALGH, M.D.

After taking a rapid glance at the importance, frequency, and close connection of these affections, he directed the attention of the Fellows to the treatment of mechanical dysmenorrhœa, which a large experience had convinced him was by far the most frequent form of this complaint. Having compared the relative merits of dilatation and division of the os and cervix uteri in this affection, he expressed a decided preference in favour of the latter mode, for the safe performance of which operation he had invented an instrument which he proposed to call the "bilateral metrotome." He stated that he had used this instrument in upwards of thirty cases, without a single casualty, and in the great majority with the best results. After giving a description of this metrotome, which he exhibited to the Society, together with a brief summary of the cases operated upon, and enumerated the affections in which he had found the division of the os and cervix uteri most serviceable, he pointed out the necessity of attending to the pathological states of the uterus frequently induced by the persistence of dysmenorrhœa, and concluded by giving a short account of the plan and remedies which he had found most beneficial for the cure of these several conditions.

PREPARATION OF A CONCENTRATED ANIMAL MANURE. A large quantity of manure is made in Lyons by boiling down the flesh of animals (principally horses) in close vessels to a pappy consistence. This material is then mixed with bone-dust, exhausted animal charcoal, ashes, or gypsum, according to circumstances, and is afterwards dried and powdered. Such manure contains seven or eight per cent. of nitrogen. (*Dingler's Polytech. Journal*, 1863.

Correspondence.

MR. BOTTOMLEY AND VACCINATION.

LETTER FROM HENRY GRAMSHAW, ESQ.

SIR,—I decline to rest satisfied with the high-handed way in which Mr. Bottomley has replied on the whole question of vaccination.

It is all very well to rush into generalities; to pooh-pooh the public vaccinator, as if he was a myth; to scoff at his eighteenpenny fee; to favour us with a letter on certain reformations which Mr. Bottomley considers appropriate (and with which I, for one, do not quarrel); and to wind up by deprecating squabbles with Boards of Guardians as *infra dig.* and waste of time. But, sir, we must take the world as we find it.

"Life is real, life is earnest,
Life is not an empty dream."

And, I dare say, Mr. Jeynes, knowing himself to be no myth, but a real, hard-working public vaccinator, and a badly paid one, too, preferred an immediate increase of his fee, from eighteenpence to half-a-crown a case, to all the *theoretical comfort* (may I say "*trash*"?) about "amendments in the law", which it was in Mr. Bottomley's power to afford.

I am a public vaccinator myself; and not long ago, I was present at a meeting of a Board of Guardians, in company with some brother medical officers. We made precisely the same request that Mr. Jeynes did; viz., that our fee should be increased to two-and-sixpence per case. As ours was not a divided house, and no brother theorist favoured the Board with any opposite views on the subject, we escaped all hissing and snubbing. The point was at once conceded; and really I cannot see that Mr. Bottomley would have done us much good had he been present to *obfuscate* the chairman's mind on the occasion.

If our friends and associates who are strongly opposed to gratuitous medical and surgical services take Mr. Bottomley's plan of action as a precedent, some of us will be inclined to exclaim, in the words of Shakespeare,

"Call you this backing o' friends?
A plague on such backing, say I."

I am, etc., HENRY GRAMSHAW, M.R.C.S., L.S.A.

Laxfield Villa, near Framlingham, July 25, 1863.

P.S. Union medical officers will not thank Mr. Bottomley one bit for inoculating Boards of Guardians with the notion that they are bound to vaccinate the children of the poor without any additional fee. I know of no such obligation; and take this statement as sufficient proof that Mr. Bottomley *does* wish medical men to work cheaply or for nothing.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

LETTER FROM B. W. FOSTER, L.K. & Q.C.P. Ireland.

SIR,—In the BRITISH MEDICAL JOURNAL of last Saturday, your correspondent Δ refers again to my letter which appeared in your JOURNAL of February 21. I feel constrained by this reference to inform your correspondent, that my letter was not written for the purpose of specially advocating the legality of the degree granted by the King and Queen's College of Physicians; but simply to correct what I considered to be a misconception of the judgment of the Court of Queen's Bench in the case of Dr. Barker, and to prevent a misconception of the value of that decision becoming general.

I am glad to see that, in your able and impartial remarks on the subject in the JOURNAL of last week, you

take the same estimate of the value of the judgment that I expressed in my letter; and state, that by the decision the College "lost nothing in respect to its claim." The Lord Chief Justice, in giving judgment, specially avoided the question, as can be seen in the quotations given in your leading-article.

Having thus stated the object of my former letter, I would deprecate any further discussion of the matter; as I consider that no good can arise from the revival of a controversy on which so much has so often been written with so little effect. In conclusion, I beg to inform your correspondent Δ , that the law he speaks of, as requiring a degree in medicine as an essential qualification for the Fellowship, has been rescinded by Act of Parliament.

I am, etc.,

B. WALTER FOSTER, M.D.

Birmingham, July 27th, 1863.

OVA OF ENTOZOA IN FÆCES.

LETTER FROM W. H. RANSOM, M.D.

SIR,—In your last week's number is a paragraph, in which M. Rayer is stated to have pointed out to the Academy of Medicine that, amongst the novel facts contained in M. Davaine's treatise on *Entozoa*, is the presence of their ova in fæces; and the possible usefulness of this in diagnosis is also alluded to.

Permit me to call your attention to a paper communicated by me to the *Medical Times and Gazette* for June 14th, 1856, entitled, On the Diagnosis of, and Treatment for, Round-worm; and on the Occurrence of a New Species of *Tænia* in the Human Body. The observations there recorded commenced in 1852; and a reference to the paper will show that ova were found; that this diagnostic point was employed successfully in practice; and that the treatment was directed by it so far as regards the ascaris lumbricoides. But ova were also found of an unknown species of *tænia*, the joints of which I could by no means bring away.

It is less with a view of raising a question of priority that I write, than from a desire to see this point taken up by my professional brethren in this country more than it has been up to this time.

The method of diagnosis is easy, and readily applied. A half-inch objective suffices; and my figures in the *Medical Times and Gazette* will serve for comparison, although drawn from a quarter-inch. A drop of soft fæces rarely fails to contain two or three ova, if there be ripe females of round-worm in the intestines of the patient.

Since writing the paper above alluded to, I have, however, found instances of persons who had unripe females, and those who had males only; and these, of course, showed no ova in the stools.

The best vermifuge for round-worm which I have used is undoubtedly the well known *santonin*. It seems equal to male fern for *tænia*; and I have previously shown how little confidence we can place in any other substance for expelling this parasite.

With reference to the question of priority, I should mention that Wedl, in his *Grundzüge der Pathologischen Histologie* (Vienna, 1854, page 144), figures the ova of ascaris lumbricoides in fæces, together with those of tricocephalus dispar; but his figures are bad, and not easy to recognise—indeed, Wedl himself speaks rather doubtfully as to the ova of the ascaris, and does not apply the fact to diagnosis.

I may here mention that the ova of tricocephalus dispar are present in almost nine out of ten specimens examined; so that I have long ceased to pay any attention to them. The parasite seems to cause no symptoms known to me; and if it had, by no means within my knowledge, can it be expelled. I was not aware of

Wedl's observations in 1856, when my paper was published, or I should certainly have mentioned them.

In any case, M. Davaine has been anticipated by more than one observer; and it seems right that the medical public should know the facts.

I am, etc.,
W. H. RANSOM.

Nottingham, July 23, 1863.

EXTREMES IN PRACTICE.

LETTER FROM THOMAS MARTIN, ESQ.

SIR,—We are again much obliged to Dr. Mayo for having invited attention to "extremes in practice", on which I took the liberty of submitting a few observations in a recent number of the JOURNAL, grounded on the teachings of my great master, Dr. George Fordyce, in his *Lectures* on his practice at St. Thomas's Hospital (of which he was, in my time, the senior physician), and on my own active practice of half a century in this place. In fact, I am old enough to have prepared medicines for Dr. Mayo, when he was a little boy, from his father's prescriptions at Tunbridge Wells in 1798.

Dr. Fordyce occasionally adverted to the differences of treatment to be observed among different classes of patients. With reference to those in the hospital, who were mostly metropolitan, having feeble powers and not bearing or requiring much antiphlogistic treatment, he had to support these feeble powers and the asthenia by appropriate *materia medica*, nutriment, and stimulants administered with judicious discrimination; and, although there were no clinical lectures in those days, he had occasionally something to say on the danger of over-stimulation, and his practice was very successful among a class of patients which must have been very much the same as constitute the inmates of hospitals at the present day.

I have practised in a "happy valley"—the Vale of Holmsdale—which, with the hill above and the region round about, is, according to the mortuary returns of the Registrar-General, not only eminently healthy, but it is the healthiest part of England. The prevailing diseases have been more or less of an inflammatory character; although with a proportion of cases of disease sooner or later requiring in their progress supporting or stimulating treatment; each having its speciality, requiring modifications at different periods, depending on the judgment of the practitioner.

With respect to the quantities of ardent spirit administered in the treatment of disease at the present day, I should expect it to defeat its own object. We all know that, in morbid asthenic states of the system, support, nutriment, and stimulants are required; and that more beer, wine, and alcohol will be borne without intoxication than in the healthy condition; but I confess I do not understand the administration of ardent spirits at the present amount, but perhaps the brandy is several degrees below proof. We used to endeavour to nourish and support patients, so as to enable them to bear up and pass through their diseases to a successful issue; but such monstrous administrations of ardent spirits as we now hear of were never contemplated as being necessary or safe.

I beg to avail myself of this opportunity of expressing my disapprobation of the word *drug* being applied to any medicine. Dry-salters and dyers deal in drugs; we deal in the *materia medica*.

I am, etc., THOMAS MARTIN.

Reigate, July 28th, 1863.

SMALL-POX IN A TROOP SHIP. The *Windsor Castle*, from London for Bombay, with troops, has put back to Plymouth, small-pox having broken out on board.

Medical News.

ROYAL COLLEGE OF SURGEONS. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 29th:—

Atkinson, Frederick Page, L.S.A., Romney Terrace, Westminster
Blake, Edward Thomas, Taunton
Bottle, Alexander, Dover
Brewster, Edward, Grantham
Brietzeke, Henry, H.M. Dockyard, Deptford
Bullmore, Charles Forrester, Falmouth
Butcher, Henry Osborne Fawcett, Ware, Herts
Coates, Frederick William, Salisbury
Court, Josiah, Warwick
Davenport, William, Kidsgrove, Staffordshire
Fleming, John, Ulverstone
Haden, Edward Cresswell, Dudley, Worcestershire
Hughes, William Frederick, Barnsbury
Jones, John Thomas, L.S.A., Tremadoc, Carnarvonshire
Lowe, Robert Whittington, Edinburgh
Mickle, Arthur George, Buntingford
Morley, Frederic, Bicker, Lincolnshire
Morris, Joseph, Birmingham
Parkes, Henry McKenzie, Woolwich
Pauli, Churton Gillman, Amsterdam
Soper, Robert Wills, Dartmouth
Starling, George, Old Charlton
Ure, John, Birmingham
Wilson, Henry, Ulverstone

APOTHECARIES' HALL. On July 23rd, the following Licentiates were admitted:—

Atherton, Ebenezer, Bingley, Yorkshire
Carter, William, Newbury, Berks
Grewcock, John Baily, Falkingham, Lincolnshire
Jeffery, Edward, Nant-y-glo, Tredegar, Monmouthshire
Lisle, Richard Philip, Cardiff
Moore, William Daly, Dublin

At the same Court, the following passed the first examination:—

Coates, George Alexander Augustus, St. Bartholomew's Hospital
Green, Thomas Henry, University College
Jackson, George, University College
Knight, Charles Frederick, Charing Cross Hospital
Knott, Thomas Henry, Guy's Hospital
Langworthy, George Vincent, St. Bartholomew's Hospital
Lush, Wm. George Vawdrey, St. Bartholomew's Hospital
Read, Charles, University College
Viant, Henry, Guy's Hospital

Admitted on July 28th:—

Burn, John, Dartford
Coombs, Carey Pearce, Frome
Fernandes, Albert Luis, Sandal Magna
Gannon, John Palmer, London
Fry, John Blount, General Hospital, Birmingham
Jones, John Thomas, Tremadoc, North Wales
Martindale, John Walker, Windermere
Mudge, Belling Harvey, Bodmin
Ringrose, Basil, Potters Bar, Middlesex
Shillitoe, Richard, Hitchin

APPOINTMENTS.

BARNES, Thomas H., M.D., appointed House-Surgeon to the Newark-on-Trent Dispensary, in the room of J. Cheesman, M.D.

BELL, Oswald Home, M.D., appointed Professor of Medicine in the University of St. Andrew's, in the room of *George E. Day, M.D., resigned.

EDMUNDSON, Joseph, M.D., appointed Assistant Resident Medical Officer of the Clonmel Auxiliary Lunatic Asylum.

HORTON, George O., M.D., appointed Medical Officer to the E Division of the Metropolitan Police.

*MARTYN, Samuel, M.D., re-elected Physician to the Bristol General Hospital.

*SKINNER, Thomas, M.D., elected Physician to the Orphan Girls' Asylum, Liverpool.

TAYLOR, George, M.D., appointed Surgeon to attend to Physicians' Cases at the Derbyshire General Infirmary, in the room of *O. B. Shore, M.D.

POOR-LAW MEDICAL SERVICE.

GALLOWAY, James, M.D., to the Ireby District of the Wigton Union, Cumberland.

GRATTAN, M. H., M.D., to No. 4 District of the Ongar Union, Essex.

HEGIBOTHAM, Edmund, M.D., to the Bruton District of the Wincanton Union, Somerset.

SHIRLEY, Henry J., Esq., to the Bedford District of the Hoxne Union, Suffolk.

SOMERVILLE, James H., Esq., to the Bloxwich District of the Walsall Union, Staffordshire.

ARMY.

ALLEN, Surgeon R. M., 3rd Dragoon Guards, to be Surgeon-Major, having completed 20 years' full-pay service.
 ARMSTRONG, Staff-Assistant-Surg. W., to be Assist.-Surg. 25th Foot.
 BALL, Staff-Assistant-Surg. T., M.D., to be Assist.-Surg. 36th Foot.
 HENSMAN, Staff-Assistant-Surg. W., to be Assist.-Surg. 20th Foot.
 LAND, Staff-Assistant-Surg. J., M.D., to be Assist.-Surg. 21st Foot.
 WALKER, Staff-Assistant-Surgeon H., to be Assist.-Surg. 19th Foot.

To be Staff-Surgeons:—

McDERMOTT, Surgeon P. A., 3rd West India Regiment.
 MARTIN, Surgeon C., 2nd West India Regiment.
 MORPHEW, Surgeon A., 1st West India Regiment.
 SKEEN, Surgeon W., M.D., 4th West India Regiment.

To be Staff-Assistant-Surgeons:—

BOULTON, Assistant-Surgeon E. J., 2nd West India Regiment.
 CARDELL, Assistant-Surgeon G., 3rd West India Regiment.
 DAVIDGE, Assistant-Surgeon G. A., 1st West India Regiment.
 FLYNN, Assistant-Surgeon T. P., 4th West India Regiment.
 GRANT, Assistant-Surgeon E. B., M.D., 4th West India Regiment.
 GREIG, Assistant-Surgeon J., M.D., 2nd West India Regiment.
 PARR, Assistant-Surgeon K. J., 1st West India Regiment.
 WALES, Assistant-Surgeon J., 2nd West India Regiment.

ROYAL NAVY.

ARNOTT, James W., Esq., Assistant-Surgeon, to the *Liffey*.
 CANN, Thomas, Esq., Assistant-Surgeon, to the *Recruit*.
 GROSE, Samuel, Esq., Assistant-Surgeon, to the *Dawntless*.
 MACIVER, Donald, Esq., Acting Assistant-Surg., to the *Rattlesnake*.
 NATHAN, Henry F., Esq., Assistant-Surgeon, to the *Hibernia*, for service at the Malta Hospital.
 WHITAKER, Joseph, Esq., Acting Assist.-Surg., to the *Rattlesnake*.
 WHITLEY, Alfred W., Esq., Acting Assistant-Surgeon, to the *Geyser*.

MARRIAGE.

At Gillingham, Kent, on July 30th, John Henry Morton, Esq., to Eleanor Child, daughter of *James Dulvey, L.R.C.P.(Edin.), of New Brompton, Chatham.

DEATHS.

BARCLAY. On June 16th, at Mercara, Madras, aged 40, Emma Berry, wife of Charles Barclay, Esq., Surgeon 25th Regiment N.I.
 BARKER, F. O., M.D., H.M.'s 90th Regiment, at Meerut, on June 9.
 CAPEL. On July 15, at Florence, Emma, wife of Lorenzo Capei, M.D.
 CARTER, William F., M.D., at Haslar, aged 79, on July 23.
 DUSAUTOY, Henry, M.D., at Southampton, aged 54, on July 10.
 GRAY, John, Esq., Surgeon, at 25, Old Burlington Street, aged 76, on July 22.
 GREEN. On July 25th, at Brighton, aged 71, Persis, widow of the late John L. Green, Esq., Surgeon, of Lewisham.
 HOPE, Staff-Assistant-Surgeon William A., M.D., in New Zealand, aged 28, on May 4.
 WALLICH, Surgeon N. D. S., H.M.'s 1st Bengal Cavalry, at Dugshai, Simla, on June 9.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY. The Library will be closed from Monday, Aug. 17th, to Saturday, Sept. 12th, both days inclusive.

ST. BARTHOLOMEW'S HOSPITAL. Scholarships have been awarded to the following gentlemen at the close of the winter and summer examinations:—S. Hall; H. Mackintosh; F. W. Richards; L. Powell; F. Bateman; R. Robinson; T. Cuddeford.

UNIVERSITY OF LONDON. We understand that at the late examination in science at the London University, about one-third of the candidates were rejected; that is to say, only about thirty-three out of ninety-six passed the muster-roll.

GARIBALDI'S WOUND. Dr. Occhipinti states that the wound in Garibaldi's foot is completely cicatrised; and that the General now takes horse-exercise. He expects that in two months, Garibaldi will be able to get about without crutches.

EXTRAORDINARY LONGEVITY. The obituary of *The Times* of July 22nd, contained the names of five gentlemen and one lady whose united ages amounted to 512 years, giving an average of 85 years and four months to each, the eldest being 88 and the youngest 83; the lady was 86.

THE NEW MEDICAL ACT. The Committee of the United Society of Chemists and Druggists have decided to offer the most strenuous and determined opposition to this measure, and invite the general cooperation of the trade. (*Chem. News*.)

PAUPER LUNATICS ASYLUM BILL. On Friday week this Bill was read a second time in the House of Lords; and the standing orders having been suspended, it was immediately afterwards read a third time and passed.

SALE OF INTOXICATING LIQUORS. Mr. Lawson has given notice that early next session he will move for leave to introduce a Bill enabling owners and occupiers of property, within certain limits, to prohibit the common sale of intoxicating liquors.

THE PORTRAIT OF DR. TURNBULL, painted by subscriptions of the governors of Huddersfield Hospital, was at the late annual meeting suspended in the Board Room of the Hospital—a memento of his lengthened and valuable services rendered to the hospital.

PRESERVATION OF MEAT. It is worth knowing at this time of the year that meat may be kept sweet for a long time in an atmosphere strongly impregnated with acetic acid. The meat is placed on a wooden support, or suspended, in a close vessel, on the bottom of which some strong acetic acid is poured. (*Dingler's Polytec. Jour.*)

POISONING BY COMMON POTASH. Dr. Lankester, on the 28th ult., held an inquest on a woman who committed suicide with the common potash of the oil-shops. Here is another article to be added to the list of poisons in the next bill, and to be only retailed in a hexagonal bottle with five sides fluted! (*Chem. News*.)

SEIZURE OF ADULTERATED YEAST. The Sanitary Officer of Hull seized last week some German yeast which contained an admixture of clay, and the magistrates ordered it to be destroyed. Although there may be some doubt as to the legality of this proceeding, there can be no doubt that this is the only way to stop adulterations; and it is to be regretted that it cannot be followed in the case of more pernicious mixtures. (*Chem. News*.)

UNIVERSITY COLLEGE, LONDON. The Council have conferred on Mr. Henry Thompson, in consideration of long and valuable service as assistant-surgeon, the title of Surgeon to the Hospital. The appointment of another assistant-surgeon was resolved on by next October. Dr. Russell was appointed assistant to Professor Williamson in giving the Birkbeck evening course of instruction in chemistry for persons engaged in manufactures and like pursuits.

INVALIDS IN THE AMERICAN FEDERAL ARMY. Already, in the progress of the war, the number of soldiers discharged from service upon the surgeon's certificate amounts to considerably more than one hundred thousand, while the average constant percentage sick in hospitals from other causes than wounds, in all our armies, is probably about seven per cent. of the entire force. (*American Medical Times*.)

POISONING BY CORROSIVE SUBLIMATE. When a solution of corrosive sublimate is placed upon a bright piece of gold and touched with an iron point, it undergoes decomposition, a thin film of metallic mercury being deposited on the surface of the precious metal. Dr. J. C. Johnston of Baltimore, by the practical application of this fact, has succeeded in saving the life of a gentleman in that city who had swallowed two scruples of the bichloride of mercury. In less than half an hour afterwards he had given his patient a bolus composed of half a book of gold leaf having previously sprinkled a drachm of iron reduced by hydrogen between its leaves. This dose was retained but a short time, when it was repeated with the happiest results; the vomiting and distress ceased; and the man recovered rapidly under the ordinary treatment for gastritis. Dr. Johnston thinks that, if the gold leaf had been rubbed in a mortar with bright iron filings and the mixture given with water, it would have been more speedily successful than the plan he adopted in his hurry. (*Boston Med. and Surg. Journal*, May 7th.)

MAGIC IN SPAIN. A woman has been arrested at Barcelona for practising magic, and in the very act of making cabalistic conjurations. In her apartment were found philtres to produce affection, pills to ensure long life, powders to produce death, a magical cat, entirely black with the exception of the required tuft of white at the end of the tail, and a quantity of diabolical emblems. All this in the second half of the nineteenth century!

CRIMINAL LUNATICS IN IRELAND. The last Report of the Gaol Inspector in Ireland tells us that the gaols have been generally healthy, and the inmates free from contagious disease. The inspectors state that every one of the abuses with regard to the treatment of lunatics detailed in their last report is still in force. They are still brought to gaols tied down with ropes on cars; and, among the numbers committed from union workhouses, sometimes very distressing cases occur.

SEIZURE OF UNWHOLESOME MEAT. The new Act to amend the Nuisance Removal Act of England, 1855, with respect to the seizure of unwholesome meat, has been printed, and is now in force. By it an inspector of nuisances or a medical officer of health may seize not only meat, but all articles intended for human consumption, exposed for sale or in course of preparation, which may be unfit for human food. Magistrates are empowered to inflict a fine of not more than £20 on offenders, or commit to prison for three months. Any persons obstructing the officers are liable to be fined £5.

IRON IN THE STARS. Merz has communicated a few notes on the construction of the spectroscope and kindred subjects, which are worthy of attention. The author in the first place gives a *resumé* of the results of Fraunhofer with the spectra of fixed stars, and then quotes very briefly from a memoir of Professor Donati, of Florence, which describes the spectra of Sirius, Vega, Procyon, Regulus, Fomalhaut, Castor, Atair, Capra, Arcturus, Pollux, Aldebaran, Rigel, and Antares. From these observations it appears probable, according to Merz, that iron plays the chief part in the atmosphere of all these stars. (*Chemical News*.)

BURNETT'S DISINFECTING FLUID. A correspondent of the *Times* writes: "It is said there have been upwards of twenty cases of twenty of death from taking Burnett's fluid by mistake for medicine. In the last melancholy case, the unfortunate sufferer had taken a whole wineglassful of the fluid instead of Dinneford's fluid magnesia. On stating the circumstance to a chemist, I learnt that my poor friend's life might probably have been saved had carbonate of soda been quickly administered *ad libitum*, as it would have immediately decomposed the chloride of zinc into insoluble carbonate of zinc and common salt. Carbonate of zinc is a white inert powder, which will do no harm; and my friend verified his statement experimentally, by adding to a sufficient quantity of the fluid a strong solution of carbonate of soda. He tasted the product, and I followed his example. The flavour was saline only, without a trace of causticity. The fell poison had become a harmless compound."

INDIAN SANITARY COMMISSION. In reply to a question from Sir H. Verney, whether the two volumes folio containing the report of the Indian Army Sanitary Commission had been presented to the House of Commons, Lord Stanley said the report of the commission and a summary of the evidence in octavo form had been circulated among members. There was a larger publication, in two volumes folio, containing the report, the evidence, and a voluminous appendix; but he could not say whether it would be circulated among the members as a body, or supplied only to those who asked for it. The latter course would probably be taken, but it rested not with the chairman, but with the head of the Indian Department, to decide that question. Sir C. Wood said the report had for some time been laid on the table of the House.

THE AUCKLAND LUNATIC ASYLUM. The condition of these unfortunate inmates is greatly to be pitied; cooped up within narrow yards or cells, they are merely prisoners—vacant, idle, "raging waves of the sea, foaming out their own shame." The nuisance of the asylum is severely felt, and bitterly complained of by the inhabitants of the Grafton suburb, and its speedy removal to a suitable locality, and establishment on a scientific basis, have become imperious necessities. As matters are at present, medical treatment suitable for insane persons is impracticable, and so crowded has the asylum become that, until increased accommodation is obtained, all new cases are under the necessity of being sent to the town gaol. (*New Zealander*.)

HOSPITAL FOR THE CURE OF STONE, ETC. At the annual festival of this new establishment, Lord Campbell is reported to have eloquently enforced the value of special hospitals, and particularly were they essential for the alleviation of that class of disease with which the institution in Great Marylebone Street was intended to cope. In proof of that, he might mention that, whereas in the general hospitals deaths from stone far exceeded the deaths from any other cause, in their hospital not a single death had occurred. In conclusion, the noble lord referred to the mysterious causes of the disease of stone as furnishing a most cogent argument in support of an institution which supplied the medical profession with the surest data for the resolution of a most difficult problem.

THE OLDEST MARRIED COUPLE IN THE WORLD. There are living at Marulan, in this colony, says the *Sydney Empire*, two persons, husband and wife, aged respectively 111 and 107 years. They are extremely feeble and bedridden, but are in possession of both sight and hearing. They were able to move about until lately, and formerly were extremely active in their habits. The old lady attempts to speak when she is addressed, but cannot make herself understood by strangers. Her utterance is so thick and inarticulate as to be little more than a few unmeaning sounds. The old man, however, although the eldest by four years, and usually lying in an apparently unconscious state, rouses himself occasionally, and can then speak so as to be easily understood. On the occasion of a visit to him a few days since of a gentleman who has known him for many years, the old man, when his arm was lifted by a person in attendance, to show the condition to which he was wasted, suddenly remarked—"That was an arm once," and quickly relapsed into his usual state. The old man arrived in the first fleet, in 1778, and has consequently been seventy-five years in the colony.

MEDICAL PSYCHOLOGY. In Dr. Laycock's class of Medical Psychology and Mental Diseases, at the University of Edinburgh, at the examinations held in July 1863, for certificates of proficiency, the following questions were propounded conjointly by the Commissioners in Lunacy for Scotland and Dr. Laycock:—1. Give a synopsis and brief description of the different forms of mania. 2. State the physiognomical aspect, symptoms, and treatment of acute melancholia. 3. Discriminate between illusions, hallucinations, and delusions; and illustrate by examples. 4. What are the most common cerebral lesions found after death from general paralysis? 5. When may insanity be regarded as incurable? 6. Under what conditions would you feed the insane artificially? Describe the processes followed; and state the reasons for preferring any particular process. 7. What results may be expected to follow from the efforts now being made for the education of idiots and imbeciles? 8. State how a practitioner should proceed in diagnosing the mental condition of a person presumed to be insane, and what precautions are needed in forming and expressing an opinion. 9. A clinical report on a case examined by the candidate at an asylum.

CHARING CROSS HOSPITAL COLLEGE OF MEDICINE. The annual distribution of prizes took place on Monday, July 27th. The following gentlemen were the successful candidates:—*Anatomy*—*Silver Medal*, Mr. Charles F. Knight; *First Certificate*, Mr. Henry Willson; *Second ditto*, Mr. Frederick Le F. Milburn; *Third ditto*, Mr. John W. Jones; *Bronze Medal*, Mr. Wm. G. Sutcliffe; *Certificates*, Mr. A. R. Verity and Mr. R. Y. V. Packman. *Chemistry*—*Silver Medal*, Mr. Other W. Berry. *Medicine*—*Certificates*, Mr. Thomas Langston and Mr. C. F. Knight. *Physiology*—*Silver Medal*, Mr. C. F. Knight; *Bronze Medal*, Mr. O. W. Berry. *Surgery*—*Silver Medal*, Mr. Edward Dyer; *Certificate and Book*, Mr. William B. Shorto; *Bronze Medal*, Mr. W. G. Sutcliffe. *Materia Medica*—*Silver Medal*, Mr. Allen Fennings; *Certificate*, Mr. H. Willson. *Botany*—*Silver Medal*, Mr. O. W. Berry. *Midwifery*—*Silver Medal*, Mr. J. H. Simpson; *Certificate*, Mr. W. H. Cope. *Forensic Medicine*—*Silver Medal*, Mr. J. H. Simpson; *Certificate*, Mr. W. H. Cope.

UNIVERSITY COLLEGE, LONDON. The result of the class examinations for the summer term of the Faculty of Medicine was ascertained at a meeting of professors and students held on Friday, July 31st, in the botanical theatre of the College, Professor Sharpey, M.D., Dean of the Faculty, in the chair, and announced as follows:—*Materia Medica*. *Gold Medal and First Certificate*, Frederic B. Nunneley, of Burton-on-Trent; *First Silver Medal and Second Certificate*, Philip B. Mason, of Burton-on-Trent; *Second Silver Medal and Third Certificate*, Francis J. Grose, of Dinapore, Bengal; *Certificates*: 4, Andrew Stuart, of Bridgetown, Barbadoes; 5, James J. Coxeter, of London; 6, Richard M. Pryce, of Caersws, Montgomeryshire; 7, Frederick T. Coates, of Islington. *Pathological Anatomy*. *Gold Medal and First Certificate*, Alexander Bruce, of London; *Certificates*: 2, P. Vaudagne, of the Mauritius; 3, Walter Smith, of Bognor. *Medical Jurisprudence*. *Gold Medal and First Certificate*, Alexander Bruce; *Silver Medal and Second Certificate*, Andrew Stuart; *Certificates*: 3, Henry C. Wigg, of Geelong; 4, Walter Smith; 5, George W. Rigden, of Canterbury. *Practical Chemistry*. *Gold Medal and First Certificate*, James S. Cluff, of Kildare, Ireland; *Certificates*: 2, Frederick J. Buckell, A.A., of Romsey; 3, William Hoffmeister, of Cowes; 4, William R. Davies, of Carmarthen; 5, George V. Poore; 6, R. Forbes Carpenter, of London. *Midwifery*. *Gold Medal and First Certificate*, F. B. Nunneley; *First Silver Medal and Second Certificate*, G. Griffiths, of Alltwn; *Second Silver Medal and Third Certificate*, William Ackerman, of St. Just, Cornwall; *Certificates*, 4, Charles Bradley; 5, F. G. Grose; 6, R. Alex. Busby, of Leamington; 7, G. W. Rigden. *Botany*. *Silver Medal and First Certificate*, Charles J. H. Smith, of London; *Certificates*: 2, W. Hoffmeister; 3, (eq.) F. J. Buckell, W. C. Cass, of Cowes, Frederick C. Bennett.

ACTION ON AN AGREEMENT: BENNETT v. HICKSON. This action was tried in the Midland Circuit at Nottingham on July 21st, before Mr. Justice Williams. The plaintiff was a surgeon practising at Worksop, and he brought this action for the breach of an agreement, by which the defendant promised that he and his co-executor, William George Beardsall, would use their best endeavours to establish the plaintiff in the business of Thomas Langley Beardsall, which the plaintiff had bought of them. Mr. Beardsall, a general practitioner, at Worksop, died in 1858, leaving the defendant, John Hickson, who is a surveyor and land agent at Worksop, and his own brother, William George Beardsall, who is also a general practitioner at the same place, his executors. His lordship, on summing up, remarked that it was admitted that Mr. Hickson had done all that was required of him, and that there was no ground of complaint whatever against him. He had, however, agreed for the acts of his co-executor as well as himself; and

the plaintiff was entitled to a verdict, if the jury were of opinion that Mr. William George Beardsall had not done that which Mr. Hickson had agreed that he should do. To say of Mr. Bennett, as Mr. W. G. Beardsall had said, that he would soon have to leave Worksop because his charges were so high, and to become his rival for the office of medical attendant upon the Abbey Lodge and Sick Club, could hardly be looked upon as acts that were likely to assist Mr. Bennett in establishing himself in the testator's practice. The jury found a verdict for the plaintiff, with £100 damages.

THE LAST SPECIFIC CURE FOR DIPHTHERIA, AND HOW TO PUFF IT. We some time back gave an account of Dr. Trideau's method, which consists in administering storax under the form of a syrup; but we now find in the *Revue Thérapeutique* a paper by Dr. A. De Grand, Boulogne, late French Vice-Consul at Havannah, in which he mentions ice as an infallible specific. In March and April 1861, the disease in question broke out under an epidemic form. One of Dr. Grand's patients was seized with it; and as he could not immediately attend, owing to the severity of the case another physician was called in, who ordered emetics and aluminous gargles, which produced no effect. At length, Dr. De Grand came, and found the tonsils greatly swollen, and a false membrane covering them. He immediately administered small pieces of ice; and by the following morning the tumefaction of the tonsils had diminished by half, and the false membrane had nearly disappeared. That very evening she was enabled to take food. A few days after, her brother was seized with sore throat, presenting the same preliminary symptoms as those of his sister; but he, profiting by this example, without waiting for the doctor, at once took ice, and was rid of his sore throat in a few hours. Some days later, Dr. De Grand was summoned to a young lady who had been labouring under the disease for the last forty-eight hours; all remedies had failed; and the parents, relations, and friends of the family were plunged in the deepest sorrow. When Dr. De Grand ordered ice, a general cry of astonishment was uttered by all present. Ice for a sore-throat! impossible! it was sheer murder! Dr. De Grand maintained his ground; and, after much expostulation, during which much time was lost, he obtained his end. Before twenty-four hours were over, the patient was in full convalescence. Being at Vera Cruz on a mission, he was requested to see a young man who was attacked with malignant sore-throat, and had been treated without effect by cauterisations with hydrochloric acid and astringent gargles. Here, again, he had to battle with the prejudices of the family; but was at length allowed to administer ice. The young man recovered in the course of the following day. Dr. De Grand has now been using this remedy for the last twelve years without having met with a single failure. This is what he says; but even if only half of what he says were true, the method should be tried by others. Cold gargles have been employed with success by Dr. Blane of Strasbourg; why not ice? (*Galignani's Messenger*.)

DISEASE AMONG SHEEP. On Friday, July 24th, Mr. D. Griffith called attention to the outbreak of disease among sheep in the west of England during the summer and autumn of last year. He described the first appearance of the disease on a farm in the neighbourhood of Devizes, in Wiltshire, stated that the remedy recommended by Professor Simmonds—inoculation—proved a failure, and narrated how the malady spread until it was arrested by Professor Gamgee, of Edinburgh, who substituted separation for inoculation. The results both of the practice of separation instead of inoculation, and of vaccination as a *dernier ressort*, were highly successful as far as present experience went. It was a year since this disease broke out; surely some conclusion as to the means of preventing this disease must have been arrived

at by the gentlemen who had conducted the experiments for the Government! The hon. member concluded by asking the question of which he had given notice—viz., whether the Government intended to take any steps for the prevention of the practice of the inoculation of sheep with the virus of sheep small-pox, or “variola ovina,” for the presumed object of mitigating the disease, on the principle of the actual prohibition in force against such practice in the case of the human subject; and what had been the results of the Government experiments of trying the effects of vaccination as a preventive of the sheep small-pox on a certain number of sheep obtained by the Government for that purpose. Mr. Lowe regretted to say that the experiments which had been tried as to the vaccination of sheep by Mr. Marsden and Professor Simmonds during the last six months had turned out unsatisfactorily. Had they proved satisfactory they would have been terminated before now; but before a negative decision was pronounced, many attempts had, of course, to be made. He therefore could give no decisive answer as to these experiments, except that they afforded little hope of extending to sheep or any other animal the same remedy as was found efficacious in the case of the human subject. As to inoculation, the experience of the late epidemic in Wiltshire was much against it, because in those flocks where inoculation was used, 20 per cent. of the sheep died, whereas in those where it was not used only 1·6 died. It was a question, however, whether it would be right absolutely to prohibit a man from inoculating sheep which were his own property, provided he took the precaution of separating them from other sheep in order to prevent the spread of the disease. But that question must be considered in connection with the general question of the diseases of cattle, which would have to be examined during the recess. He might, however, observe that there was reason to believe that farmers could not do a more imprudent thing than to inoculate their sheep.

Varieties.

POISONOUS SPIDERS. We find it necessary to caution our readers against sitting on certain places until they have ascertained that no spiders are lurking in the locality; another narrow escape from death, similar to that recorded in our last Friday's issue, having come under our notice. It appears that a woman residing on the Flat was bitten on the lower part of the body, on Sunday last, by a black tarantula, and that shortly afterwards she was attacked with violent pains in the loins and chest. The symptoms increasing by eleven o'clock at night, Dr. Carr was called in to administer relief. He found the action of the heart much impeded, violent pains extending from the head to the feet, the eyelids swollen, and violent fever in the region of the lungs—in short, the woman was dying rapidly. Dr. Carr applied remedies which produced profuse perspiration, resulting in the destruction of the virus and cessation of the pains. It was not, however, until Tuesday evening that the woman was out of danger, when her face presented a most extraordinary sight, the eyelids being swollen to a considerable size, and the features generally being very much distorted. One or two other cases of the same kind have been reported to us, but they do not seem to have been so serious as the two cases we have recorded. (*Talbot Leader.*)

THE CONSERVATION OF FORCE. We recognise that matter can never be destroyed, nor created. The principle we refer to, asserts the same of what we term *force*. The apparent conversion of one force into another, where this can be observed, supports the doctrine in a very remarkable manner. In other instances, if we assume

the conservation of force still to hold good, our present knowledge and means of observation are at fault, and new fields of intellectual research and discovery are clearly indicated. We may raise a heavy mass of metal, say a hammer, to a certain height, and allow it to fall on a small cube of cast lead or annealed copper. To raise the hammer, a certain exertion of force is necessary; the equivalent of this force is produced when the mass is allowed to fall through an equal distance. By the concussion, the cube of lead, or even that of copper, will be found to be compressed and flattened to a certain extent. Now it might be said that the force,—that of momentum, in the hammer, had been expended in producing this effect; and the expression, correct enough in its ordinary sense, might be taken to signify that this force, originally generated by physiological action, had thus entirely disappeared, and was destroyed or annihilated. But if we now bring the fragment of lead or of copper in contact with phosphorus the latter will be inflamed. Another force, that of heat, has been generated; and careful experiment tends to prove that this will be the exact equivalent of the force exerted in the first instance. The latent heat evolved from the metal may now be absorbed by a portion of the atmosphere, in which it may again become latent, producing at the same time the effect of expansion. In the reduction of metal from its oxide, heat is absorbed; in the oxidation of a metal, heat is evolved. In either case, the quantity of heat bears a constant proportion to that of the particular metal operated upon. We know that another force besides heat is produced by oxidising a metal, such as zinc or cadmium, under certain conditions, viz, in the voltaic battery. The doctrine of the conservation of force indicates that the *electricity* thus produced should correspond to the whole, or to a portion, of the heat which would otherwise be evolved by the oxidation or combustion of the metal. (*Electrician.*)

THE HOSPITALS OF VENICE. “In these I have been greatly disappointed, as they are vastly larger and better managed than I had supposed. The large Civil Hospital at Venice stands on the banks of one of the principal canals, near the church of San Giovanni e Paolo; it dates as far back as 1485, and consists of the magnificent buildings of the Scuola di San Marco, a religious order devoted to the care of the sick and poor of the city. The buildings are somewhat irregular, but very spacious, and were devoted to their present purposes after the fall of the republic. The whole establishment is capable of accommodating from 1,500 to 2,000 patients. The entrance is through a wide and high hall, with splendid marble floors and columns, beautifully carved wood ceilings and frescoes; and the wards, which are between one and two hundred feet long, with very high ceilings, are grouped around six large court-yards, in one of which is the sarcophagus of Marino Faliero, the decapitated Doge. There are sixty-two halls or wards admitting of extensive classification. There are, for example, lying-in wards, syphilitic wards, fever wards, wards for diseases of children, for female lunatics, for ophthalmic cases, for medical and surgical diseases. One of the principal physicians conducted me over every part of the establishment, and explained everything minutely. In some of the wards there were four rows of patients, owing to repairs going on in the building. Still, I doubt not there were over 1,200 cubic feet of space to every bed, owing to the great height of the ceilings. Every part was scrupulously neat and clean, and the utmost order and system everywhere prevailed. There are 1,000 patients in the buildings, under the charge of 11 principal surgeons and physicians, 14 assistant surgeons, 16 sisters of charity, 8 apothecaries, 1 director or acting principal, and 1 director-general. There are two classes of patients, pauper and pay. Of the latter are three grades: those supported by the district or commune to which

they belong, who pay 55 cents per day; a class of private patients who pay 40 cents per day; and a superior class, who have better accommodations, and who pay 88 cents. In the court-yards are nine cisterns, for rain-water, and one artesian well. This is forty-five metres deep, and the water has a taste of sulphuretted hydrogen. Children under seven occupy the basement, which struck me as very damp and unhealthy. The little patients all had a miserable, pale, sad, and sickly look. The apothecary apartment, as in all Italian hospitals, was on a large and splendid scale, and admirably managed. The buildings are of two stories, and the whole thrown into large wards, one of which was devoted to cases of pellagra. All were extremely clean, quiet, and well ventilated." (Lee.)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Royal Botanical Society (Anniversary).

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A QUESTION OF ETIQUETTE.—SIR: May I ask the favour of your opinion upon the following case?

C. D., a physician in a county town, is medical superintendent of a railway there. His duties are—"To visit immediately any persons who may be injured on the line. To provide surgical assistance for any one requiring it. To give pecuniary assistance to such persons as are prevented from following their employment, and are too poor to keep themselves. And to note carefully the character, etc., of the injuries, so as to prevent the company being imposed upon."

An accident happened on Friday afternoon. Two persons injured in it were removed to their homes in a country village by the next train. The village surgeon (A. B.) was sent for, and saw them. The next morning, a telegraph from the company's secretary informed C. D. of their names and address, and requested him to see them forthwith. He called, announced his name and reason for calling, asked permission to see the patients, went upstairs, and was then informed by the patients themselves that A. B. was in attendance. C. D. made a cursory examination; said he would not, of course, interfere with the treatment; received from the patients an intimation of cordial thanks; and immediately called upon A. B., to ask him to appoint a consultation for another day. It will be observed that C. D. was in entire ignorance of the attendance of A. B., until it was told to him by the patients themselves; that his visit then ceased to be medical, and was purely ministerial, to obtain information for the company, his employers; and that he took the earliest possible opportunity of communicating with A. B., and that he would not, until after such communication, give any medical opinion as to either the nature or the treatment of the case.

A. B. says C. D.'s conduct was "irregular." C. D. contends that it was strictly professional; could not have had any other course; and was fair and courteous to A. B.

July 28th, 1863.

I am, etc.,

X. Y. Z.

[Our opinion is, that in a case of this kind, C. D., having discovered that the patients were under the charge of A. B., should not have visited them further without the consent and knowledge of A. B. As the case is one of some general importance, we will give our reasons for this opinion in an early number of the JOURNAL. EDITOR.]

COMMUNICATIONS have been received from:—Mr. AUGUSTIN PRICHARD; Dr. REYNOLDS; Mr. WM. OWEN; Mr. T. M. STONE; Mr. GASCOYNE; Mr. CROSS; Mr. G. W. HASTINGS; Mr. HENRY LEE; Dr. W. NEWMAN; Dr. W. BUDD; Mr. JAMES DULVEY; and Dr. J. A. SYMONDS.

SUBSCRIPTIONS.

The following Laws of the Association will be strictly enforced:—

15. The subscription to the Association shall be One Guinea annually; and each member on paying his subscription shall be entitled to receive the publications of the Association of the current year. The subscriptions shall date from the 1st of January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous. If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid.

16. The name of no member shall remain on the books of the Association, whose arrears extend over three years; but the omission of the name from the list of members shall not be deemed, either in honour or equity, to relieve any member from his liability for the subscriptions due for the period during which he has availed himself of the privileges of membership.

PHILIP H. WILLIAMS, M.D., General Secretary.
Worcester, June 1863.

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Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

THE

ADDRESS ON CHEMISTRY

IN ITS

RELATION TO MEDICINE AND ITS COLLATERAL SCIENCES.

BY

WM. BIRD HERAPATH, M.D., F.R.S.,
BRISTOL.

MR. PRESIDENT AND GENTLEMEN,—When the members of your Council determined to select me for the performance of the highly honourable and responsible duty of addressing this important gathering of my medical brethren, representing as it does the intelligence and learning of our extensive and most honourable Profession, it is deeply to be regretted that they could not also ensure the necessary leisure to prepare an address worthy of the occasion. Numerous avocations have considerably interfered with the preparation of this arduous work, which has been one of considerable difficulty from various causes; the introduction of this subject itself being quite an innovation in the practice of the Association, and, in fact, it is one hitherto untouched by any one previously on any similar occasion; whilst the purely technical character of the science might, even in the generality of professional minds, fail to induce that interest and attention which all authors hope to produce in the persons of their audience. If, therefore, in the treatment of this subject, I may have failed to give satisfaction to any of my numerous auditory, or if this address suffer by comparison with the highly wrought productions of our worthy and accomplished President, or of any other of those who have similar duties to perform for the other and more practical branches of our noble profession, I trust that the members generally will give credit for my having attempted to make the subject as generally interesting as possible under all the varying circumstances of the case.

The science of Chemistry, although of modern growth, is one having extensive bearings on all other sciences and branches of human knowledge:—arts, manufactures, and mines, alike depend upon its teachings and discoveries for progress and support; whilst even geology, mineralogy, and astronomy must acknowledge that some of their sublimest discoveries have been due to the aid which chemistry has accorded to them at some period of their history. Metallurgy must necessarily depend upon the due performance of the chemical processes of reduction of the metals from the rough ores from nature's store-house; whilst the powers of the microscope and the far-seeing mechanism of the astronomical telescope alike owe their delicacy

to the Chemist, who prepared the optical glass and the metallic supports of their various instruments.

But Medicine is even more dependent upon her sister science than any one of those previously named; for she must not only prepare her medicamenta by chemical processes, but the very constitution of the patients' bodies would not be known without an appeal to the aid of the analyst; and the due performance of all the phenomena of life depends upon those silent, hidden, and mysterious chemical processes which go on continually in the natural laboratories of our own bodies, and without an adequate knowledge of which no physician can hope to attain the power of alleviating those numerous ailments to which all alike are heirs, from the noble to the peasant, and from which even the physician himself is not exempt.

"The proper knowledge of mankind is man." How much more necessary is it for the physician to know himself! We will therefore devote the limited time at our disposal to the discussion of those topics of physiological and pathological chemistry which are more interesting at the present moment to the great bulk of our busy professional brethren, and which might be presumed to come daily under their cognisance in the exercise of those duties, which all appear to demand from us more as a right than as a concession from the benevolent feelings of our heart to the common exigencies of our nature.

Chemistry teaches us that the organised kingdom of nature contains four elements, of which both animal and vegetable structures are chiefly composed: these are carbon, hydrogen, oxygen and nitrogen. And as you are all doubtless aware, many of the proximate elementary substances into which our various bodies may be divided by the skill of the analytical chemist, consist of some three of these primary elements; such are, for instance, fats, oils, glucose and dextrine; together with an extensive class of the animal acids; whilst from the vegetable world we have also a large number of proximate elementary substances, having the same chemical elementary characters; and of these, woody fibre, cellulose, gum, dextrine, starch, and sugar, may be enumerated. All these bodies have been proved to be formed of varying proportions of carbon, hydrogen, and oxygen, the number of atoms of which are variously arranged and grouped amongst themselves; which molecular arrangement is sufficient to account to the scientific chemist for the different properties of the substances enumerated.

Some substances derived from both the organised and mineral kingdoms, consist of only two elementary bodies, such as carbonic and oxalic acids and carbonic oxide, in which carbon and oxygen alike enter into their composition, and water, in which oxygen and hydrogen can alone be discovered, when it is absolutely and perfectly pure; whilst ammonia is often illustrated as a compound of hydrogen and nitrogen only, but recent views have determined that oxygen also is one of its constituents—so that now we agree to write it as NH_4O , instead of NH_3 , as formerly.

In addition to these binary and ternary classes of organic molecules, there is a large and important class in which all four elementary bodies are combined to form one quaternary group, and of such are almost all the vegetable alkaloids, as morphia, strychnia, quinine, cinchonine, etc.; whilst from the animal kingdom such compounds as urea, uric and hippuric acids may be enumerated. These are all characterised as nitrogenous bodies, as the atoms of the element nitrogen appear to govern the constitution and formation of the molecule. Another small group contains sulphur in addition to these four primary elementary bodies: such products are obtained from bile, and we may enumerate the tauro-cholic acid and taurine, and cystine, occasionally procurable from urine. From the

brain, we have the oleo-phosphoric and cerebrie acids, bodies containing phosphorus as one of the primary elements of their compound molecule.

These illustrations are sufficient for my purpose to bring back to your minds the truths taught you long ago, and thence to start on a fresh excursion into the component elements of the organic world, which will inform us that many other bodies absolutely require phosphorus, sulphur, chlorine, iodine, fluorine, and silicon, as constituents of acids or acid-radicals; whilst they have either potassium, sodium, lithium, magnesium, or calcium, together with iron, manganese, and traces of copper, acting as bases. Most of these elementary bodies, though found in the various tissues of both vegetable and animal structures, are too often disregarded as being too purely mineral for them properly to belong to an organised being; but of what use would the teeth or bones of any animal be, without the phosphate of lime which gives them strength and hardness? and the external skeleton of a crab, lobster, or an echinus, equally requires the aid of carbonate of lime to give it permanence and durability. It follows from this brief *resumé* that there are nineteen or twenty elementary bodies of which organised beings consist; and further investigations devoted to the examination of the human organism alone, prove that the same elementary substances are sufficient to make up its tissue and build up "its glorious form divine".

The spiritual principle of the whole animal kingdom has hitherto eluded the skill of the chemist, as it has equally baffled the research of the anatomist; but in the same way that chemical logic will enable the chemist to demonstrate satisfactorily the existence of a material elementary principle even before its isolation and production in the test-tube, so analogical reasoning proves the possibility and probability of such a spiritual principle as one of Nature's powers. For the same reason that chemistry has failed to detect and demonstrate the existence of this spiritual principle, whose proper domains are the realms of thought and the sphere of perception, so it has hitherto been unable to render any assistance to the elucidation of the diseases and derangements of the mental powers, dependent as they are upon the combined agency of spirit and matter. The true corporeal structure so intimately connected with the phenomena of mind, may be, and has been, subjected to numerous investigations by both the anatomist and the chemist, and even further submitted to microscopical analysis and investigation, without as yet giving any satisfactory evidences of change, during many of those diseased conditions, which, alas, too often afflict humanity. But wondrous are the discoveries which chemistry has unfolded to us during the past half century; and who amongst us can foretell what may not be done in the succeeding age? We are as yet only on the dawn of youth of true organic chemistry; for, as a science, it has only had its birth some twenty years since. Those questions which now appear to us mysterious and profound, will probably, ere long, become clearly explained in proportion as science advances in the path of philosophical investigation. Even now it is scarcely possible for the professional man, after he has left the schools, to keep pace with the progress of discovery; unless he specially devote himself to that branch of intellectual culture. The profound speculations of Berzelius, Laurent, Dumas, Liebig, Mulder, and Hoffman, together with those of such lesser names of note as Wurtz, Lehmann, Kolbe, Stenhouse, Buckland, and Frankland, have created such a mass of materials for mastery and thought, that few minds are capable of the task or equal to the labour.

I will not go further into these enticing fields of chemical investigations, than just to allude to the wondrous theory of compound ammonias, by which it

has been demonstrated that various compound atoms, such as ethyle, methyle, amyle, and propyle, together with a host of other bodies of like character, are capable of taking the place of either one, two, three, or even four of the elementary atoms of hydrogen, from the molecule of ordinary ammonia, and producing such compounds as ethylamine, methylamine, propylamine, amylamine, or dimethylamine, trimethylamine, tetramethylamine, when more than one atom of hydrogen has been replaced by methyle, all of which are powerfully alkaline bases, similar in properties to the ammonia from whose type they have been derived, by the principle of substitution. The importance of this discovery is already bearing fruits in the arts of life by giving extensive fields of industry in the production of the new purple, mauve, and magenta dyes from aniline, obtained in the manufacture of coal-gas; and is abundantly illustrated in that beautiful substance magenta, which is the nitrate of rosaniline, already rendered available to the histologist in demonstrating the various structural elements of which his numerous complex tissues are composed.

The discovery of these volatile compound ammonias will, in a medical point of view, be eventually productive of new theories of miasmata, and will probably explain the obscure causes of the wonderful propagation of many epidemic and contagious diseases: as trimethylamine has been separated from the urine of man and found also in the herring, and propylamine has already been discovered to be the cause of that peculiarly disagreeable odour evolved during the decomposition of certain fish, and it has also been discovered in the ergot of rye; and in other organised products of decomposition and disease we might expect to find analogous compounds. In another direction we might anticipate these theoretical views to expand themselves, practically, in the building up of the complex molecules of the valuable medicinal alkaloids, quinine, cinchonine, and cinchonidine, now only obtainable by the aid of pharmaceutical chemistry from the products of the cinchona barks, and for the supply of which we are still almost wholly dependent upon the primeval forests and unsettled governments of South America. After almost unheard of difficulties and dangers innumerable, it is true we have succeeded in creating extensive nurseries of these glorious trees in our Indian colonies, which, in process of time, will render us in a measure independent of such precarious and failing sources of this veritable "tree of life" and monument of human knowledge; but what a glorious future would burst on that man, who, by dint of industry, theory, and scientific manipulations would be able to say, "I can produce quinine artificially, in any required quantity, from substances as comparatively valueless as ammonia, aniline, or methylated spirit."

The bearing of organic chemistry on medicine may be further illustrated by that glorious gift of science to humanity, so well known as chloroform, whose wondrous property of alleviating pain and banishing mortal agony, entitles it to the well-merited appellation of the elixir of life.

Wine, and its product alcohol, also owe their discovery to the chemical processes of fermentation and distillation, practised from the earliest times, and celebrated in glorious verse as the gift of gods to man.

"Or' ἐγὼ πῶν τον οἶνον."

"When wine I quaff, before my eyes
Dreams of poetic glory rise;
And freshen'd by the golden dews,
My soul invokes the heavenly Muse.
When wine I drink, all sorrow's o'er;
I think of doubts and fears no more;
Dissever to the riling wind
Each gloomy plant an' of the mind."

But they bear no comparison in their usefulness to

the product of the decomposition of alcohol or methyle by chloride of lime. Yet who can number the lives which have been saved by the agency of alcohol, timely administered by the hands of attendant medicine? whose tongue can celebrate the joys which ruby wine has conferred to the nuptial board and social hour, since Eve first plucked the golden fruit from Knowledge's tree and tempted man to drink thereof? But, on the other hand, who can paint the misery, degradation, and ruin which alcohol has introduced to the world since Adam's fall and Eve's temptation; who can picture the disease, madness, and woe which its indulgence will yet bring upon sensual humanity? Yet the chemist, by his wondrous enchanter's wand, converts it either into chloroform, ether, or aromatic vinegar, to cool the parching thirst, to allay the aching brow, to soothe the troubled spirit, or to rob our surgical operations of all their horrors, and assuage the piercing pangs of labour.

These transformations are chiefly brought about by the manifestations of those mysterious laws of chemical substitutions and organic molecular transpositions, which the changing affinities of various compound molecules exhibit amongst themselves, and the knowledge of which has enabled the chemist to multiply his products of decomposition almost indefinitely. And, as it has only of late years been discovered that the now well-known chloroform possessed such marvellous remedial powers, and "such a charmed agency for good," so may we expect that many of those products, which, as yet, possess scarcely more than a purely scientific interest, will, as time rolls on and they have passed from the cabinet of the chemist to the hands of the practical physician, add to our healing powers, so that we may attain greater and more enlarged powers over disease and death, the mortal enemies of the human race.

It has often served as an illustration of the same law of change, that, by the act of respiration alone, man contributes his quota of carbonic acid to the atmosphere, to be again subservient to the production of vegetation, and return to himself as organised tissue; yet the magnitude of this process of oxidation is scarcely appreciated even by the sanitarian, although its primary importance has been long recognised and admitted by the uninitiated multitude. An adult human being has been shewn experimentally to consume daily about fourteen ounces of carbon in the various articles of food obtained from different sources, which is subsequently expelled in equivalent quantities by the excretions of the lungs, kidneys, and skin, whilst some portion is thrown off as excrementitious in the products expelled from the intestinal canal. Of these fourteen ounces of carbonaceous food, he returns to the atmosphere, as carbonic acid, about twenty-five cubic feet in the same period, weighing about $4\frac{1}{2}$ ounces, and representing about 12.7 ounces of the carbon consumed. In every year of his life he would therefore contribute 290 lbs. weight of solid carbon to the atmosphere: and, supposing him to live the full period of seventy years, he would have thrown off by his lungs alone somewhat more than nine tons weight of solid carbon, equal to twenty-one tons of sugar, starch, cellulose, or paper. It would therefore require about 4500 individuals to exhale by respiration a quantity of carbonic acid sufficient to reproduce all the paper manufactured in the United Kingdom during one year, which, in 1857, was calculated to amount to 65,478 tons. Or, if we suppose this amount of carbonic acid expended in the reproduction of the woody fibre of the oak, every individual member of this Association would evolve nearly sufficient carbon during his lifetime to regenerate two ordinary sized oak trees, weighing about five tons.

If every adult human being discharge daily such an immense quantity of carbonic acid as $4\frac{1}{2}$ ounces, or 25 cubic feet, how great must be the daily production of such large and densely populated cities as that we now inhabit, containing as it did 130,000 human beings at the last census. Were there not most effective means provided for its removal, the whole population would soon be destroyed by suffocation in its own poisonous emanations; and for this purpose the atmosphere is continually in a state of agitation and movement by the ascending currents, heated by the contact with the warmer soil, or thrown into more violent commotion by the winds of heaven, blowing from every point of the compass, and carrying with them all that which would oppress and destroy all animal life, as well as the whole human race. But these noxious matters are most beneficially distributed over large agricultural districts, and so efficiently mixed up with the whole bulk of the atmosphere, that the most experienced chemists have not been able to discover more than from 3.7 to 6.2 parts in 10,000 equal measures of air obtained from different localities. Our beautiful green pastures and fields of ripening corn, our delightful hedge-rows and princely avenues of aristocratic oaks and ancestral elms, purify the atmosphere of that carbonic acid, of which the plebeian artisan has equally contributed his share alike with the noble and the peer, and all the sacred majesties of the world. Not only is the atmosphere contaminated by the addition of these large quantities of carbonic acid, but human beings and most animals evolve, both from the lungs and skin, ammonia in considerable proportion, and various odoriferous principles which may be readily detected by our senses, and which, when suffered to accumulate in confined localities, as happens in densely populated districts, and in the crowded courts and alleys of large cities, prove highly injurious.

The noxious effects of these organic products may be everywhere witnessed around us; and were there not some provision made for the removal of these deleterious matters, the atmosphere would ere long become so foul and contaminated with impurities, that virulent epidemics would become generally diffused throughout the civilised world.

There is a peculiarly active principle, which chemists have recently isolated and identified as an altered or allotropic form of oxygen, but presenting many of the destructive powers of chlorine, and thus of infinite benefit in disinfecting the atmosphere of those contaminations. Oxygen, in its ordinary condition, requires some intermediate agency to bring its peculiar powers into play upon organic matter; there must be constant moisture and an elevated temperature, occasionally even that of a red heat, for the decomposition and perfect combustion of some animalised compounds. But ozone will act instantly, and at the ordinary temperatures, upon most bodies of this description, and all power for harm disappears as if by the enchanter's wand. In the laboratory, the chemist produces this body by the aid of phosphorus in a state of slow combustion, or by passing electric sparks through atmospheric air; or he obtains a small percentage of the same gaseous odoriferous agent, mixed with ordinary oxygen, during the electrolysis of water and separation into its component gases by means of a continuous galvanic current of electricity.

Among these various methods, nature avails herself of the thunder-storm as the grand producing agent of this remarkable body; and when a house has been struck by lightning, it is well known that the inmates have often become aware of the presence of some remarkable odoriferous principle, which may be compared to sulphurous odours, and which effect is due to the ozone evolved; as may be proved by the peculiar

decomposition of iodide of potassium in the presence of starch, and the elimination of iodine, and production of the characteristic blue colour of iodide of amidin. Now, during the evaporation of water, which is continually going on over the extensive surfaces of the Atlantic and Pacific oceans, electricity is evolved to a great extent; and the atmosphere becomes charged with enormous quantities of aqueous vapour, which acquire a highly electrical condition, opposite in character to that of the surface from which the vapour has been raised.

The moisture and heated air, when it has been elevated by expansion to the higher strata of the atmosphere, and carried, by the revolution of the earth upon its axis and by other causes, towards the cooler and more temperate zones, deposits its moisture in dense cumuli, which become so many highly excited galvanic batteries, ready at a moment's notice to deluge the earth with moisture, and discharge their electricity in the torrent of the storm, hurling destruction on all sides at those trees, buildings, or other elevated points which do not possess sufficient conductive power to withstand their Herculean shocks. The violent electrical tumult of these magnificent storms produces a large quantity of ozone, and purifies the atmosphere of all deleterious agents, destroying the potency of infection by the rapidly oxidising agency of this wondrously active oxygen, and washing away all organic refuse too extensive for such a chemical agency to destroy in so short a period.

We also find that the quieter electrical agency of evaporation and condensation of moisture will evolve ozone extensively, without the tumult or violence of a storm; and these are the more constant sources of the ozone necessary to our existence. We find ozone predominating very decidedly on all the sea-coasts of our island home; and the annual ozone standards in these districts are always higher than in the interior of the kingdom, where the animal matter predominates, and destroys the ozone by the using up of its powers of oxidation and combination.

Hence we have the explanation of the beneficial agencies of the healthful sea-breezes of our coasts, and why our patients become invigorated by the change of occupation and climate which a sea-side residence occasions. Hence we have the reason why a long sea-voyage generally restores power and energy to the debilitated nabob or cachectic invalid from our Australian or Indian colonies, and why even our nautical brethren, as a class, enjoy more health than any other equal number of men under different climatal agencies.

The true elements of food are sugar, starch, and oleaginous materials, on the one hand, as carbonaceous materials; and on the other, nitrogenous products, the so-called protein compounds—albumen, gluten, fibrine, and other analogous bodies. The digestive process is carried on by the aid of the decomposition of common salt or chloride of sodium, the hydrochloric acid produced being the active agent of the gastric juice, assisting the pepsine, or peculiar albuminised ferment generated by the gastric follicular glands; the liberated soda going to the bile to produce the biliary soaps, consisting of the cholate and choloidate of soda, two conjugated compounds of animal hydrocarbons, and containing but a small proportion of nitrogen, whilst one of them contains a large percentage of sulphur. The biliary acids are sometimes called glycocholic acid and taurocholic acid.

These biliary soaps not only serve to neutralise the free hydrochloric acid of the chyme, but to help to form an emulsion with the other oleaginous elements of food, and occasion their absorption by the lacteals, assisted in this operation by the pancreatic juice,

which serves as the medium for dissolving these soapy materials.

Chemical experiments readily convert starch into sugar, passing through dextrine. The chief agency in this transformation is that of the dilute mineral acids. The recent experiments of Dr. Pavy have demonstrated the existence in the normal liver of large quantities of a substance called by him hepatine, and since shown by me to be closely analogous to dextrine, if not absolutely identical. Consequently, digestion converts starch primarily into dextrine or hepatine, which is absorbed and laid up in the liver as in a storehouse.

Other experiments clearly demonstrate that fatty matters are readily producible from starch or sugar; as witness the fatty fermentation of saccharine matters into butyric, rutylic, and margaric acids; and we have availed ourselves of this fact in agriculture by giving abundance of starchy materials to those animals which we intend to fatten, whilst we reduce the respiratory power and muscular energy by long and close confinement. It is, however, necessary at the same time to give them albuminous substances; otherwise we rapidly fill their systems with carbonaceous matters, which cannot be got rid of by the pulmonary oxygen. Under these new circumstances, the conversion of starch and albumen into fat evolves considerably more oxygen than can be obtained by respiration; and the liver, in producing biliary fats, gives up oxygen to compensate for the want of respiratory powers.

Hence we see the necessity of keeping our gouty patients on a farinaceous diet; for we thus oxidise their excessively nitrogenous blood, and assist in converting the carbonaceous elements of diet into cholic and choloidic acids, urea, and carbonic acid. Every 4 equivalents of albumen, with 20 equivalents of starch or sugar, will produce 6 equivalents of margarine, 12 of water, and 192 of oxygen; uniting with the elements of albumen to produce 4 equivalents of cholic acid, 8 equivalents of cholic acid, 12 of urea, and 26 atoms of carbonic acid; whilst the addition of 40 atoms of water is requisite, and we must also obtain 32 atoms of oxygen from the air by the function of respiration. Were no starchy elements employed, the 4 atoms of albumen would require 224 atoms of oxygen (seven times as much) from the air to produce the same products, with the exception of the 6 atoms of margarine.

The functions of the stomach and liver, therefore, are partly to prepare fat and bile from the amylaceous portions of the food; and, in doing so, to break up the effete and worn-out albuminous materials by adding oxygen through the simultaneous destruction of starch; assisted as these powers are by the oxidation of respiration and the addition of water. The ultimate products are on the one hand carbonic acid, water, and ammonia, passing off by the lungs and skin; and on the other hand urea, uric acid, and the other effete products thrown off by the kidneys.

In the carnivorous reptilia, the absence of starchy food and the influence of rest and full animal diet are well illustrated by the production of lithic or uric acid in immense quantities; whilst urea and fat are not products of their digestive process, or the results of the destruction of their effete tissues. They may be said to labour under the lithic acid diathesis, and to suffer from chronic gravel or stone, or to be the very analogue of our gouty aldermanic patients, who may with justice be said to live a purely reptile kind of life.

In diabetes, we get large quantities of glucose eliminated by the kidneys. Under these circumstances, the starchy elements of diet produce less bile, less fat; and the necessary stage of hepatine or dextrine has

been passed through, and has gone beyond that stage at which the process should have been arrested. We will study this process somewhat more in detail, as its importance is very great, and it is a problem of vast interest to the medical practitioner.

Starch, therefore, excluding the gluten accompanying it, contains, according to chemical analysis, twenty-four atoms of carbon united to twenty atoms of water, and its formula is usually written $C^{24}H^{20}O^{20}$. During ordinary digestion, having been first rendered gelatinous and soluble by the action of the slightly acid gastric juice, aided by the increased temperature of the stomach and possibly by the pepsine itself, it becomes converted partially into hepatine or dextrine, a substance which may almost be considered an allotropic form of amidin or gelatinous starch, as it bears so close a relationship to this substance that most chemists give it the same identical formula. However, Dr. Pavy has stated that his hepatine has the atoms in the relation $C^{12}H^{12}O^{12}$, or doubled, $C^{24}H^{24}O^{24}$; but it is quite probable that the analysis was made of a hydrate of the pure material. Another portion of the starch is converted into glucose by the action of the salivary fluid and pancreatic juices; but the far greater proportion ultimately becomes converted into fat, as we have previously shown, by the joint agency of the liver, upon the alimentary starch and effete fibrinous materials. These fatty matters, having been thrown out by the liver as bile, in which we find the copulated biliary acids (cholic and choloidic acids), combined with soda, here meeting with the acid chyme from the stomach, becomes decomposed; the products being again chloride of sodium, water, and liberated fat; this is subsequently made into an emulsion by the pancreatic juice, and absorbed by the lacteals, entering the superior vena cava by the thoracic duct and left subclavian vein, whence it goes at once to the right side of the heart and thence through the pulmonary circulation.

Dr. Pavy has shown us that cane-sugar, when taken into the animal economy, is equally capable of producing dextrine or hepatine; and other observers have also found that animals and man fed on cane-sugar in large quantities equally produce fat with those supplied with amidin or starch. And to undergo this preliminary change into dextrine or hepatine, it would be requisite for anhydrous cane-sugar to assimilate two atoms of water to become dextrine.

During the process of lactation in the female of all the mammalia not purely carnivorous, starch has another duty to perform; and it becomes the source of some of the elements of the natural pabulum of all the junior mammalia; sugar of milk or lactic being one of the principal products of its conversion. Under these circumstances, we have $C^{24}H^{20}O^{20}$ converted into $C^{24}H^{24}O^{24}$ by the assimilation of four atoms of water.

Supposing that the change occasioned by the dilute acid of the gastric juice fails to stop at the allotropic stage of dextrine or hepatine, but passes on to that of glucose, we have the formula $C^{24}H^{28}O^{28}$; or the further assimilation of the elements of water to the extent of eight atoms. Normally, the alkaline bile and the soda of the liver become the agents of stopping the conversion of the amylaceous matters at the point of allotropism, in consequence of the soda of the bile neutralising the hydrochloric acid of the gastric juice, in the lower portion of the duodenum and in the hepatic cells.

Hence we see, that under some conditions of system soda must be employed as a remedy to hinder the change of starch from passing on into that of glucose. Thus we perceive the reason of the conversion of our starchy food into glucose, and why alkalies, opium, and creasote, arrest the change at the allotropic condition of hepatine or dextrine; just as, in our chemical

experiments on starch, we arrest the conversion or hydration by means of chalk, as soon as tincture of iodine ceases to give any evidence of unchanged amidin.

The theoretical action of our principal remedies for diabetes now develops itself.

Under other circumstances, should there be an excess of the peptic element of the digestive process, we get the starchy elements of our diet changed still further into lactic or acetic acids; for we all know that by the aid of casein in a state of decomposition or decay, we can easily change starch, through sugar or glucose, into lactic and acetic acids.

This amyloid substance, glucogen or hepatine, so analogous in its composition and chemical properties to dextrine, has been discovered in the cells of the liver of most animals as well as man. It has also been found in the placenta of the mammalia and in the cells of the amnion in the order *Ruminantia*, but it has also been proved to exist in the tissues of the fetuses of rabbits, cats, Guinea pigs, sheep, oxen, and pigs; whilst in the skin of the chick *in ovo*, and at the points where the aggregation of epithelial cells shows the incipient formation of feathers and hairs, it is most abundant. The horny structures contain it plentifully; in the bill, the hoof, and the claws, it exists in a large proportion. The muscular tissues of the fetus are full of it; even from twenty to fifty per cent. can be extracted from the muscles of foetal calves, during the first seven months of their intrauterine life. During embryonic life, a great part of the fetal tissues are found to be so impregnated with amyloid substance, that it appears to be the formative material from which the tissues are evolved; and, in fact, it would seem to be as clearly related to their growth and development as starch and sugar are to the growth and development of the tissues of all vegetables.

It follows, therefore, from these premises, that this amyloid substance, hepatine or animal dextrine, is not normally converted into sugar in the animal economy. Although so nearly related to the saccharine principle on the one hand and to starch on the other, it is really a substance intermediate in properties and necessary to the constitution of the animal frame; being more especially serviceable in the building up of the gelatinous tissues of the skin and muscular structures, and in the earlier stages of the formation of hair, feathers, hoofs, and nails.

But by an abnormal progressive action going on in the degree of conversion of the starchy elements of food, we find that hepatine passes on to glucose, and then is eliminated from the animal body as so much refuse material, so much lost matter; fat disappearing from the system, that which has been already formed becomes lost, and there is no longer a production of the adipose substance, of which the chief ingredient is margarine in the human race.

We now have that condition which pathologists have called glucosuria or diabetes; and in this disease it is by no means unusual to find eight, ten, or even twelve ounces of sugar voided every day by the kidneys; and the urea is increased in a corresponding ratio, so that even 800 or 1000 grains of this substance have been frequently found as the quantity expelled from the unfortunate patient.

In that rarer form of disease which has been called diabetes insipidus, a substance has been detected in the urine, having many of the properties of sugar, but which is destitute of sweetness—yet capable of being converted into grape-sugar by the action of dilute acids, and susceptible of fermentation and conversion into alcohol. This will probably eventually be proved to be hepatine or dextrine, as its intermediate characters are so clearly indicative of such relationship to glucose and starch.

Under other diseased conditions of the body, in which the liver plays so conspicuous a part, we find the colouring matters of the bile, the fatty acids, and probably hepatic and taurine, escaping from the body through the kidneys; and now we have those phenomena due to one of the forms of jaundice.

Dr. Macdonnell, in a paper recently published in the proceedings of the Royal Society, says, in reference to this subject, that "the recent researches of Lehmann, Pavy, Bernard, Brown-Sequard, and others, tend to prove that the fibrine, and much of the albumen, of the portal blood vanish in the liver; and that at the same time that it destroys these azotised compounds, it forms its non-azotised amyloid substance, and excretes bile containing so little nitrogen, that it hardly need be taken into account. Are we not, from the consideration of these functions, led to infer that the nitrogen which leaves the liver by no other outlet, may go forth in the hepatic blood in union with the amyloid substance thus changed into a new azotised principle? That thus the liver is a great blood-forming organ, in which there is constantly going on a reconstruction of certain ingredients of the blood; that in it the fibrine, etc., which has done its work is disintegrated, the hydrocarbon of the bile abstracted, and the nitrogen combined with the amyloid substance, which, instead of being converted normally into sugar, emerges from the liver a constituent principle of the protoplasm, from the bosom of which (to use the words of Bernard with reference to the fetal tissue) organic evolution is to be accomplished?"

Now, during the normal conversion of starch into fat, as previously shown by the action of the effete albuminous or fibrinous materials, a considerable proportion of oxygen must be eliminated from the elements employed; and one portion of the function of the liver may be said to be that of a grand accessory organ to the function of respiration; the products eliminated being highly charged with hydrocarbonous materials and deficient in nitrogenous matter.

The existence of the amyloid substance as a constituent of the muscular and gelatinous tissues, accounts satisfactorily for the presence of hepatic and production of glucose, even in those diabetic patients who have been deprived of amylaceous food during long intervals of time. In this case, they are producing the glucose from destruction of their own tissues, or from those portions of their dietary which also contain the amyloid substance in the normal condition.

During the next generation, our duty will be to examine the nature or constitution of the hepatic blood for its nitrogenous elements, and to make a comparison of its constitution with that of the portal system.

We must endeavour to compare the percentage of hepatic, urea, and other constituents in both the afferent and efferent currents of blood; whilst the fluid contents of the thoracic duct must undergo a complete examination anew.

The function of respiration, when efficiently performed, has been shewn to account for the major portion of the carbonaceous matter consumed in the human organism; but, although the supplied carbon has been eliminated to the extent of nearly thirteen parts out of fourteen as carbonic acid from the pulmonary circulation, it is well known that the true formation of the evolved carbonic acid takes place in great measure within the systemic capillaries, from the oxidation and destruction of those portions of the corporeal frame which have died in doing their destined work, and henceforth require removal from the body as effete tissue and disorganised material.

The next carbonaceous and nitrogenous materials of

the food, by the functions of primary and secondary assimilations, undergo those molecular rearrangements of particles and chemically organic combinations necessary to produce by their modifications either fat, cellular tissue, muscular or nervous fibre, or bone—in fact, are employed in replacing those histological elementary tissues which have become exhausted and worn out.

It is not necessary to dilate further upon the manner in which the remaining fourteenth part of the carbon disappears. The kidneys throw out some portion, as creatine, creatinine, lactic acid, and urea; whilst the skin also contributes to its elimination as various fatty or sebaceous products, as well as carbonic and lactic acids. But next to carbonic acid, the principal excretion from the animal body is most undoubtedly urea, as it is one of those ultimate products of destruction of tissue which the processes of oxidation going on in the corporeal laboratory has no further power of destroying. It is scarcely necessary to say that, when thrown off from the body, its permanent character ceases to exist, as decomposition readily ensues, either by heat or fermentation; and its conversion into carbonate of ammonia rapidly occasions the well known phenomenon of alkaline urine. In this condition, it returns to nature's laboratory the principal part of the nitrogenous matters which have been taken into the organism, and formed a portion of the animal frame; the residue of the nitrogen being eliminated from the body as ammonia by both the skin and pulmonary cells, and through the tubular structure of the kidneys as creatine, creatinine, lithic acid, and some other bodies of less importance both in physiological and chemical points of view.

Numerous experiments have shewn that an adult healthy man, who lives well, discharges on an average from 30 to 40 grammes of urea in twenty-four hours. It is therefore within just experimental data to say that every man gets rid of 540 grains of urea daily from his circulating medium, by means of his kidneys, or about twenty-eight pounds and one-seventh every year, and, during the seventy years of his natural life, upwards of seventeen hundredweight of urea.

The importance of this elimination has been hitherto much underrated in both pathological and physiological calculations; and it is only of late years, since we have been furnished with Liebig's most excellent method for the quantitative estimation of this ultimate element, that its true import has been fully understood. It is, in fact, *the measure of the imperfection of the respiratory function*; the vital power and combining agency of the nitrogen atom having obtained the mastery over the destructive power of pure oxidation, and effected a compromise between the two functions by the discharge of a substance intermediate in character, properties, and composition, yet differing slightly only in arrangement from carbonic acid, water, and ammonia, the absolute products of true combustion and perfect oxidation.

A city such as Bristol, with 130,000 inhabitants, would produce 1625 tons of urea every year, which enormous quantity, under the present defective method of managing the sewage, is now thrown into the sea, and lost to agriculture; such a product, if it could be possibly saved and utilised, would represent more than 2112½ tons of carbonate of ammonia and 1841 tons of pure ammonia; which, in money value, would be equivalent to £110,460 sterling. It is almost impossible to calculate the immense money value of the enormous waste which must occur in the United Kingdom from the loss of this material, which an improved and perfect mode of sewage would enable us to collect and employ most extensively in agriculture.

When the quantity of nitrogenous materials consumed is in great excess over that required by the

organism, as occurs in the generality of our aldermanic brethren, we find disturbance of the respiratory process, an imperfect oxidation in the eliminated products, and a failure in the phenomena of life, which expresses itself in the elimination of a large quantity of carbon and nitrogen as lithic acid gravel, or produces the more severely agonising diseases of renal or vesical calculus, or the horrors and pangs of gout, if the lithic acid be produced faster than the powers of its elimination can expel it from the system in some one of its soluble forms.

Increase the powers of oxidation, and the molecules of lithic acid will disappear from the blood-vessels of our afflicted patients, broken up into urea, or even further decomposed into carbonic acid, water, and ammonia; and now the lungs and skin will assist the kidneys in getting rid of this poison from the system.

Assuming that our patient's powers of oxidation are sufficient to produce the due quantities and proportions of urea and carbonic acid, yet from the occurrence of some interference existing in the eliminating powers of the numerous epithelial cells of the kidneys, these organs refuse to throw off the urea from the body. This substance necessarily accumulates in the system, producing the disease known as uræmic poisoning, and the nervous system soon shows grave and violent phenomena, as witnessed in the convulsions of epilepsy, of scarlatina, and of the pregnant or parturient female; whilst, in other cases, the serous membranes come to the relief of humanity, and the pavement epithelium cell does the duty of the spheroidal or glandular, and serous accumulations or dropsies occur, containing large quantities of that urea which ought to have been discharged for manure; and, should some speedy outlet not be found for this virulent poison, the overcharged system fairly succumbs to the noxious influence, and rapidly increasing drowsiness, thence passing into coma, and closing the scene with an early death, proves the virulence of that poison, which has been produced in our own bodies by the natural action of physiological laws, but whose elimination has been interfered with and interrupted by simple arrest of the normal excretory function.

Assuming the average weight of each individual in this assemblage to be 150 pounds, and that the relative weight of the bones to the whole body would be 10·5 per cent., it follows that the whole skeleton would weigh about 15½ pounds. Now, dry bones contain on an average 57 per cent. of phosphate of lime, together with some phosphate of magnesia; which proportions would furnish us with about 9 pounds of actual bone-earth, or ashes, upon incineration and removal of all organic matter, and exclusive of the carbonate of lime. Supposing that we extract the phosphorus from these 9 pounds of bone-earth by the most perfect possible method, we should obtain about 21·3 per cent. of that pure body; consequently, our total 9 pounds of bone-earth would give us 1·917 pounds of phosphorus, or nearly 2 pounds of that material to each individual skeleton. I need scarcely say, that such a quantity of so highly a combustible matter would be nearly or quite sufficient "to set the Thames on fire," if properly used; whilst, if it were converted into lucifer matches, it would be the means of radiating more light in the world, and thus driving away a deeper Cimmerian darkness than ever any one of the individuals would be capable of doing in a life time devoted to illuminating their species by their philosophical speculations.

The whole of this immense quantity of inorganic skeleton has been introduced into our bodies slowly and imperceptibly with our food, principally obtained from the *cerealia* directly containing it, or gradually eliminated from the albuminous and fibrin-

ous materials of flesh which contain it as phosphorus in combination with the so-called protein substance or its analogues; and which, having already formed part of the organised structure of some herbivorous animal, has also been in like manner obtained from the herbaceous and seminiferous portion of the *gramineæ*, or other plants used as fodder.

If we consider, then, for one moment, how large a quantity of bread-stuff this inorganic skeleton represents, we are lost in amazement at the results, and clearly perceive that, should we desire to rapidly introduce phosphates into the system, it would be desirable to employ some material more richly impregnated with phosphorus than either muscular fibre or vegetable gluten. For this purpose, eggs would be the best dietetic or indirect source; inasmuch, as the dried substance of white of egg contains 13 per cent. of ash, chiefly consisting of phosphate of lime.

In addition to the large quantity of phosphorus contained in the bony portion of our skeleton, every individual discharges on an average about 45·5 grains of phosphoric acid daily in the urine alone; whilst the faeces also contain a very considerable proportion. It is evident, therefore, that during each year of our lives we eliminate by the kidneys alone, about 2½ pounds of phosphoric acid, equivalent to about 11·2 pounds of bone-earth. Thus, we perceive, each adult throws away more phosphoric acid every year by his kidneys than would suffice to build up his skeleton anew; and he may be said to have discharged his whole skeleton through his kidneys every year that his life has been prolonged. Such a calculation strikes one very forcibly that our organisms demand an immense quantity of bone-earth supplied to us during our natural lives; for one moment will convince us that a man of seventy years of age, would have eliminated a proportion of phosphoric acid by his kidneys equal to about 784 pounds of phosphate of lime, which is exactly seven hundredweight of that material. This would be sufficient, if converted into artificial manure, to produce two tons of this material, enough to spread over ten acres of ground, and render it fertile for reproducing grain crops to a large amount.

There has been great controversy during the past twenty years, in relation to the existence of fluoride of calcium, as a constituent of the bones and teeth of animals and man; but it has at length been conclusively shown that about 1 per cent. of this material occurs in the substance of dried human bone. Consequently, as the skeleton of man is about one-tenth part of his living weight, it follows that there would be about two ounces of fluoride of calcium in the skeleton of a man of that average weight; and I have no hesitation in saying that in the bones of the various individuals in this room, there would be sufficient fluoride of calcium to produce enough hydrofluoric acid to dissolve one pound of glass, or to etch the plates necessary to engrave the whole of the *Pictorial History of England*, or to illustrate the most copiously adorned volume ever published to the world.

A collection of three hundred individuals would give 600 ounces or 36·5 pounds—a quantity sufficient to evolve hydrofluoric acid enough to darken all the windows of the Crystal Palace, and render them wholly opaque.

The osseous frame-work of our bodies is one of equal interest and importance to the chemist, anatomist, and pure surgeon; and whether taken in a merely practical point of view, or only examined scientifically, it well repays us for the time devoted to its consideration; but at this period, it is scarcely necessary for me to allude, except incidentally, to the large percentage of animal matter which bones also contain, on account of which circumstance enormous quantities are annually employed in agriculture, both in a crushed

condition and also even more extensively after having been converted into soluble superphosphate of lime. But when these hard materials of our corporeal framework are submitted to the processes of natural decay, it is astonishing how long they last without crumbling into that dust of which they, as we are told, have been originally made.

The idea of which this dogma is the well-known expression, probably was practically engendered in the mind of man originally from the ancient method of disposing of the dead by the process of cremation, and from the visible products of those burnt offerings which were the earliest modes of attempting to propitiate offended Deity. Ashes alone remained behind as a record of the past. Although, even in the present day, we follow the less scientific and certainly far less healthful mode of sepulture by entombing the remains of fallen humanity, the expression still continues to be commonly made use of, "Ashes to ashes, dust to dust," as a remnant of the former mode of consuming our bodily tenement and disposing of mortality. But when these bony portions of our structure are exposed to the whitening agency of the tropical sun, or left upon the plains of the Lybian Desert, the toiling caravan may be tracked by its long line of bleaching carcases long after all remembrance of the fact has been buried in oblivion and forgetfulness. The soft flesh, blood, fat, muscles, sinews, nerves, and brain, have all disappeared by rotting and decay; and their various organised elements have assumed new forms of combination, and taken on those of the multitudinous volatile bodies and gaseous products of decomposition, in consequence of that slower process of combustion arising from gradual cremation and the effects of atmospheric oxidation; while the naked skeleton alone remains, alike the image and typical resemblance of the destroying angel Death, and the personification of Time. Still much organic matter remains united to the earthy materials of the tissues, from which, by chemical processes, considerable quantities of ammonia may be obtained by manufacturing agency, or by that gradual destruction induced by the conjoined effects of oxidation and moisture. These disorganising processes slowly progress through the original structure of the bone, under the ordinary circumstances of burial, or during the usual exposure in a moistened soil, at a certain rate in a century; so that the percentage of animal matter gradually decreases in amount, and the phosphate of lime at length remains pure, and deprived of that power of coherence which the gelatinous tissues had formerly conferred upon the structure of the bone. Under these circumstances, some bones will incur a change of form, and readily give way to the agency of external pressure; and thus we are enabled to account for the misshapen human skulls found on the ancient site of Uriconium or Wroxeter; and when they have been longer exposed to these destructive agencies, we find them even crumbled to decay and reduced to their primeval dust. But, as may be expected on ordinary theoretical grounds, the thicker and larger bones of the extremities resist decomposition for much longer periods, and some of these have latterly excited considerable scientific interest from having been discovered entombed in certain geological formations as long anterior to the present creation as the date of that form of terrestrial surface which was coeval with the existence of the *elephas primigenius*, the mammoth and megatherium, and with the cave-bear, all of which are animals whose types have disappeared and been wiped out of existence by the destroying hand of Time, aided by the grand geological mutations of the relative levels of land and sea which have ensued during the past hundred thousand years of this world's history. Our ordinary chronological notions suffer rudely from the

shock of such a sweeping scientific deduction drawn from those durable and immutable pages of the rock; and we are compelled to look on with wonder and amazement at this lasting monument of human duration in Time.

It has been conclusively shown by the researches of Professor Tyndall and other physical philosophers, that the whole of the mechanical powers employed by the united machinery of the world are ultimately derived from the light of the sun; whilst the supremacy of England amongst the nations of the earth depends upon those extensive mines of coal which have been stored up for us in certain beds of the carboniferous series, ever since the geological changes which ensued upon the destruction of those ancient magnificent forests which remain to us as evidence of a former fiat of creative energy.

Most extensively employed, as they are, thousands of years may elapse ere England feels the want, or exhausts her store of mineral wealth; yet all these she owes to that mysterious agency which light exerts upon vegetative power, by which the budding plant and growing tree transform carbonic acid, water, and ammonia, into the substance of their own cells, juices, and tissues; and by that law of mutual dependence which Omnipotent wisdom has ordained, rendering the animal subservient to the vegetable kingdom, by producing, through the exercise of their functions of respiration and excretion, those material compounds which vegetation demands; whilst, by that beautiful power of compensation between the respiration and assimilation of the vegetable kingdom, vital energy is restored to the atmosphere by the constant reproduction of "the breath of life", and deposition within the fabric of the exogenous and monocotyledonous trees or their succulent stems; and wrapped up in the swaddling clothes of its cellular envelopes, the bounteous gift of Ceres lays up those stores of starch, sugar, and gum, together with those nitrogenous proteine compounds, without which animal life would perish, and this whole creation pass away, like those successive faunas and floras of former geological eras ere man began.

In Nature's laboratory, nothing is wasted, nothing lost. As matter was when time began, atom for atom still remains; not one has disappeared, disintegrated, or been destroyed; chemical agency and organic transformation, alteration, and substitution, account for every atom as originally turned out of the Creator's mould. As one generation succeeds another, so one creation follows the former; the present is formed but from the atoms of the past.

In support of this allegation, we may adduce the following well known geological facts; viz., that man is now using for his extensive manufacturing purposes coal obtained from four different stages of the palæozoic period. That mineral is worked in Portugal in the rocks of the Silurian stage; in Spain, its richest mines are derived from those of the Devonian period; whilst in Saxony, it is worked in the Permian formations; and the magnificent coal-fields of England are, as we have already adduced, obtained from the Carboniferous era, the most extensive as well as the most recent of all the four important divisions of the great Palæozoic period of this world's history.

The scientific agriculturist of the present day extensively uses, as a fertilising material, phosphate of lime as an artificial manure; in the manufacture of which he has employed coprolites, massive sharks' teeth, and gigantic bones, with other organic remains obtained from the red crag of Norwich—a fossiliferous deposit arising from a comparatively more modern creation during the Pleiocene era.

These five successive geological eras are the remains of as many different worlds existing in all their

grandeur; sporting in beauty and revelling in loveliness ages before the final appearance of man upon the earth; yet he has long since learnt to employ them all for his especial use and power; and in so doing, he fills the atmosphere with carbonic acid, he covers his fields with bone-earth, and his crops return to him with ten-fold multiplication, his herds fatten and increase in number, and, by consuming them, he may be said to rebuild his own body with the atoms derived from the destruction of no less than five former worlds. It is true that neither chemistry nor geology, will enable him to isolate or identify the various atoms obtained from each era; but these sciences conclusively prove the laws of transmutation and cyclical change.

It may be thought advisable to say a few words upon the various causes assigned to the production of these incessant changes in corpuscular matter, and the modifying powers which induce these energetic actions in the world around us.

Certain physical forces existing above, around, and within the area of our limited faculties, exerting powers of various intensities, and manifesting themselves to our senses in different manners, having been studied under the names of heat, light, electricity, magnetism, together with chemical affinities and motion, are, in fact, the main objects of experimental physics, and various affections of that matter which everywhere surrounds us as objective phenomena. They have been hitherto considered, until very recently, as so many distinct causations of all that of which we become cognisant by our senses. But Grove has conclusively shewn "that they may all be considered as correlative forces, and to have a reciprocal dependence on each other. That neither, taken abstractedly, can be said to be the essential or the proximate cause of the others, but that any may, as a force, produce the others; thus heat may mediate or immediately produce electricity, electricity may produce heat; and so of the rest, each merging itself as the force it produces becomes developed: and that the same must hold good of other forces, it being an irresistible inference that a force cannot originate otherwise than by generation from some antecedent force or forces."

As an illustration of this law, we may adduce a most conclusive experiment, performed by Grove, and related by him in his work on the *Correlation of Physical Forces*, p. 58.

"By a certain arrangement of a daguerreotype plate, in a darkened box, connected on the one hand by means of wires, with a gridiron of silver wire, and on the other, with one extremity of a galvanometer coil, and a highly sensitive thermometer, called Breguet's helix, interposed in the circuit, as soon as light is allowed to fall on the iodised silver plate by the removal of the interposed shutter, the needles of the galvanometer are deflected from zero. Thus light being the initiating force, we get *chemical affinity* on the plate, *electricity* circulating through the wires, *magnetism* in the coils, *heat* in the helix, and *motion* in the needles."

Of these various forces our earth receives as extraneous motive powers those of light, heat, and actinism—emanations radiating from our central sun, and which are so many modes of motion of that imponderable ether which exists not only within the interstices of all corpuscular atoms of our immediate and material presence, but also penetrates to the utmost limit of creation, and appears to be coeval with the existence of space itself, and the universe which it contains. This imponderable ether has the omnipresence and immaterial properties assigned as the characters of omnipotence itself; and, assuming that one eternal

mind can bring this universal power into action, and develop the undulations of light, the motions of heat, and the correlative currents of electricity and magnetism, we get chemical affinity necessarily resulting, and motion everywhere follows as a consequent phenomenon; so that these physical forces may be said to be the fingers by which divinity has acted through the immensity of time, and from all eternity. Natural philosophy here merges on the domains of religion; and both agree in the existence of One Universal Spirit, extraneous to and different from materiality, immense in power, the originator of all power and creator of all change.

The luminiferous undulations of this universal ether, when submitted to the refractive powers of Newton's prism, elicited the philosophical explanation of the gorgeous rainbow, "the harbinger of joy, and pledge of Divine forgiveness to man"; and now the more intimate study of the mysterious lines, within this wondrous arch of seven primitively refracted rays, has enabled the physical philosopher of the present day, not only to analyse the constituents of the solar mass and develop the constitution of his planetary worlds, but lately, by the examination of the stellar spectra, we have pushed our analytical inquiries into the immensity of space, and elicited the wondrous intelligence that the universe itself is filled with self-luminous matter, equal in beauty, rivalling in magnificence, excelling in power, our own glorious orb, the centre of all happiness on this terrestrial globe; and demonstrating by analogical inductive reasoning the astounding fact that, throughout the whole universe of creation, one agency exists, one matter extends, and suns around suns, worlds on worlds, revolve, whose constitution and destiny are the same as our own planetary sphere.* By this it is evident that the Creator's powers have revealed in the immensity of space; and that our globe is but as a drop in the ocean of eternity, only a unit in the grand and inexhaustible scheme of creation's universe; and that man and his spiritual guide are present everywhere throughout the confines of space, even to the remotest nebula which has been visible in the gigantic telescopes of a Herschell or a Rosse. And, however much we might be disposed to tremble at such a development of the theory of the universe which such sublime discoveries unfold to us, we must ever remember that the Godlike author of our pure and spiritualised religion has already declared that "in our Father's house are many mansions, and that he has gone to prepare a place for us; and where, as our accomplished President has so beautifully said, "the new heavens and the new earth, which the highest and purest minds have been inspired to look for, and to prefigure in solemn vision, will infinitely surpass in beauty and in glory all those which have gone before them."

* The discovery of thallium has proved a monochromatic green to exist; whilst the metal osmium gives a pure violet band; thus adding two pure colours to the idea of the triple spectrum. That seven primitive colours exist is the more probable idea.

DISEASES OF THE MAORI. Dr. Rawson describes in the *New Zealander* a disease somewhat common among the Maori children after they are weaned, worse in its nature and results than fever. It cannot be mistaken or unobserved in its attack, for it is accompanied by swelling of the stomach, with constant coughing, and tumours in the neck. He ascribes it to feeding them on potatoes or putrid maize. The neglect of the feeding of children with wholesome food, such as will nourish and strengthen, is the great cause of the death of many before arriving at years of maturity, and is the source of much of the sickness that prevails among the Maori race.

THE

ADDRESS IN MIDWIFERY.

BY

J. G. SWAYNE, M.D.,

PHYSICIAN-ACCOCHEUR TO THE BRISTOL GENERAL HOSPITAL; AND
LECTURER ON MIDWIFERY AT THE BRISTOL
MEDICAL SCHOOL.

MR. PRESIDENT AND GENTLEMEN,—To those who are exclusively engaged in the practice of medicine or surgery, a report on the progress of midwifery may, at first sight, appear to promise little that is either novel or interesting. Some may perhaps be disposed to ask, Can there be any progress worth recording in an Art which mainly consists in watching the operations of Nature? Even in those exceptional cases where Nature is at fault, have not the rules been long well established and clearly laid down by means of which Art assists her in working out what is, after all, a mere problem in animal mechanics?—a problem such as Astruc has stated in the following terms: “Given an extensible cavity, to draw from it a flexible body, of given length and breadth, through an opening dilatable to a certain point.”

Such a statement as this may be a correct definition of the duties of a midwife in a bygone age, but it embraces a very small portion of what the public requires from the accoucheur of the present day. Instead of simply solving mechanical problems, he knows too well that he has to deal with some of the most complicated and abstruse vital phenomena, and to contend with physiological and pathological aberrations of a very peculiar kind, originating in an organ so all-important in the female economy, that Van Helmont was led to say of it, “Propter solum uterum mulier id est quod est”; and Plato went so far as to compare this organ to “a wild beast that obeys no reason, but which, when its desires are unsated, wanders about within the body and excites all sorts of irregular motions.”

Thus we have the origin of a set of maladies peculiar to women, forming a separate and distinct group, and requiring treatment of a particular kind, which, in the course of time, has come to be assigned to the obstetric physician, and in the present day forms a part of his practice quite as important as the treatment of parturition and its attendant dangers and difficulties. Midwifery, in its widest sense, now includes the treatment of diseases of women and infants, and comprehends so large an array of cases of the most multifarious kind, and of such frequent occurrence, that it cannot be called a “speciality”, except by an abuse of language. It would be equally correct to call surgery or even medicine a speciality. As Dr. Tyler Smith has well remarked in his address last year to the members of the Obstetrical Society, “There is a tendency to call us specialists, against which we should all contend. We are not specialists in the sense in which the ophthalmic or aural surgeon follows a speciality. Midwifery is one of the three great departments into which the wants of society

and the lapse of time have divided the profession; and if the charge of speciality is brought against the obstetricist, it might with equal justice be urged against the physician or surgeon.” Every general practitioner will bear me out when I say that midwifery, in the sense now used, or, as it is more correctly termed, “obstetric medicine”, constitutes at least one-third of his ordinary practice. Nor is the literature of midwifery behindhand, as compared with that of medicine or surgery. Let any one who has doubts on this point, or who thinks that there is little room for novelties or improvements in obstetrics, refer to the pages of those medical journals which chronicle the annual progress of the different branches of medical science. Let him look, for instance, at the Sydenham Society’s *Year-Book of Medicine, Surgery, etc.*, for 1862. He will find that, during the past year, the British and foreign publications on medicine occupy a space of 135 pages, those on surgery 134, and those on midwifery 95. Let him then compare the space taken up by midwifery with that which is taken up by the several specialities included in the reports on medicine and surgery. In medicine, for instance, he will see that the works on psychiatry, or the treatment of mental diseases, fill up but a space of 11 pages; whilst, in surgery, those on ophthalmic diseases occupy but 15 pages, and those on aural diseases but 1 page. But, were further proof wanting of the comprehensive character of obstetrics, as compared with the above specialities, the accoucheur can refer with pride to the yearly volume of *Transactions* issued by the Obstetrical Society. These form a record of communications which may safely be said to be second to those of no other medical society in interest and importance.

In bringing before you to-day a short account of the most recent and valuable contributions to obstetric science, I shall endeavour, to the best of my ability, to perform the task which my brother associates have done me the honour of intrusting to me; but, at the same time, I trust you will feel assured that, if I fail to interest you in the subject of my address, this result will be due, not to any lack of new facts and opinions worth recording, but to the manner in which these have been selected and presented to your notice by me.

As the subject is a very wide one, want of time will compel me to limit my remarks as much as possible to facts which have been recorded since the commencement of last year. Midwifery being a science to which the remark, “Oditur ab ovo,” especially applies, the first point which, in the natural course of events, would claim our attention, is the physiology of reproduction. But here, again, want of time forbids us to turn aside into the devious and seductive paths of physiological speculation, and commands us to keep as closely as we can to the hard realities of practice. We have no leisure, however great our inclination, for discussing the interesting question of spontaneous generation, or recording the phenomena of metagenesis or parthenogenesis which have been observed among the lower animals. All these topics belong more properly to a report on physiology, and cannot be treated of in an address on midwifery, which will not allow even a brief notice of the function of reproduction as it is performed in the highest beings of the animal kingdom.

I propose, therefore, to-day to restrict my remarks as much as possible to points in midwifery practice about which we have as yet no very clearly defined or well recognised rules. This may be said especially of the

OBSTETRIC USE OF CHLOROFORM.

Although chloroform has now been employed in midwifery for more than fifteen years, obstetric authors are not yet agreed as to the extent or the frequency with which it should be administered. The question is yet *sub judice*; and the Royal Medical and Chirurgical Society are now endeavouring to obtain the opinions of a large number of practitioners on this important subject. Pending their inquiry, I do not wish to prejudice the question, so much as to briefly advert to some of the opinions which have been lately broached upon it. Chloroform is one of those good gifts of Providence which, like many other things, has suffered from excessive and injudicious praise. The discovery of an agent which would abolish the pangs of labour was at once hailed as an inexpressible boon by the public. Accoucheurs of sanguine temperament speedily caught the enthusiasm, constituted themselves the apostles of chloroform, and went about preaching the glad tidings of "parturition without pain". With them, the new anæsthetic was a sovereign remedy without alloy, and fulfilled the most opposite indications. It abolished the pains of labour, and yet in no way impaired the muscular contractions which produced those pains. It thoroughly relaxed a rigid os uteri or completely suspended uterine action when the accoucheur wished to turn, yet it never retarded the course of natural labour, nor caused *post partum* hæmorrhage or retention of the placenta from inertia. But it was not long before chloroform, like every other medicinal agent, was found sometimes to occasion untoward results; and then the new anæsthetic had to encounter the bitter hostility of practitioners of the old school, who regarded it as an unmixed evil, and obstinately refused to sanction its use under any circumstances. Men with minds thus constituted are commonly called "bigots" by those of an opposite temperament; but yet it may fairly be questioned whether that term (if we adopt Dr. Johnson's definition—viz., "a zealot, one devoted to a party") is more applicable to those who think nothing good that is new, than to those who think everything good that is new. Men of the former class will be glad to find the objections to the use of chloroform in midwifery stated forcibly and at some length in a communication by Dr. Johns in the *Dublin Quarterly Journal of Medical Science* for last May. In this article it is shown, from the published reports of the Dublin Lying-in Hospital during the mastership of Dr. Shekleton, that there was a mortality of 133 out of 13,406 cases in which chloroform was not administered, or about 1 in 100; whilst out of 342 who had chloroform, 30 died, or 1 in 11. Dr. Johns also states that, during Dr. Collins's mastership, puerperal convulsions proved fatal in the proportion of 1 in 6; whereas in that of Dr. Shekleton, under chloroform, it amounted to 1 in 3, and in Denham's cases to 2 in 3, or on the whole to 2½. "It appears that, during Dr. Shekleton's tenure of office, *post partum* hæmorrhage occurred but once in every 257 cases where chloroform was not used; yet after its inhalation this complication was present in 1 of every 49 cases. In Dr. Denham's report, it was present in 1 of every 19 cases; making, on the whole, an average occurrence of 1 in every 39.8 cases." Dr. Johns likewise quotes from the same reports, and from the writings of various authors, to prove that labour is often retarded by chloroform; and that puerperal inflammations, hysteria, and mania are more frequent after its use. Some of the opinions cited are not very clearly or precisely stated, whilst others lose their value from the very evident partisanship of their authors. Indeed, this last objection applies in some degree to Dr. Johns's paper; but yet there are many

facts in it which the advocates of unlimited chloroform in labour will have much difficulty in explaining away. Several of these I am able to confirm from my own experience. For instance, I have met with cases in which labour was rendered very tedious from the use of chloroform; so much so that I was obliged to discontinue it; and, after doing so, the pains set in with renewed vigour. And I have seen other cases in which *post partum* hæmorrhage seemed to have been much aggravated if not occasioned by it. I have also frequently observed that the infant remains in a state of half-stupor, and cannot be induced to take the breast for some hours after delivery under chloroform.

I cannot say, however, that I have met with any case where death could be distinctly traced to its use. On the other hand, I have found chloroform of the greatest service in first labours accompanied with unusual suffering and much rigidity of the soft parts, and, in common with most accoucheurs, have experienced the great utility of it in obstetric operations.

A valuable paper on the Use of Chloroform was lately communicated to the Obstetrical Society of London by Dr. Kidd. The author warmly advocated the cause of chloroform, and defended it against attacks from various quarters. An interesting discussion followed, which elicited a variety of opinions on the subject from several eminent metropolitan accoucheurs; some giving it as their experience that the use of chloroform during labour was unattended with any unfavourable symptoms, whilst others had found that it not unfrequently retarded labour, and produced hæmorrhage and other unpleasant results.

After all, the great question to be settled, and which, I hope, will be settled before long by the Royal Medical and Chirurgical Society, is, whether the use of chloroform in labour should be the general rule or the exception? At present, I must say, I incline to the latter view myself, for the following reasons. The ultimate safety of our patients ought undoubtedly to be the primary consideration with us. In comparison with this, the mere saving them from pain is quite a secondary matter. The real question is this: Does the suffering during an ordinary labour compromise the patient's safety so much as the unconsciousness produced by chloroform? I cannot think that it does; and in a normal labour especially, when I do not know by experience that chloroform acts beneficially on the patient, I would rather let well alone, than interfere with the course of nature by giving this or any other medicinal agent.

Passing on from this subject to that of difficult labour and its treatment, we observe in the *Obstetrical Transactions* of last year a most useful and practical paper by Dr. McClinton of Dublin, on

TURNING IN CASES OF DISPROPORTION.

The utility of turning in such cases was known to the accoucheurs of the last century, but had been comparatively lost sight of until attention was again directed to it by Professor Simpson of Edinburgh. In a series of able and ingenious papers, the Edinburgh professor conclusively demonstrated the value of this expedient as a substitute for the long forceps in difficult labour from pelvic deformity. In Dr. McClinton's paper, the results of seventeen cases, which came under his care in the Dublin Lying-in Hospital, are recorded. In none of these cases was there any considerable deformity of the pelvis, although the obstetric histories of the women clearly showed that there must have been some slight narrowing of the superior strait. In every instance, Dr. McClinton experienced some difficulty in bringing the head through the pelvis, and in two cases had to perform craniotomy. In one instance, the parietal bone next the sacrum was fractured. All the mothers recovered with the exception

of one, who died of puerperal fever. Nine children were saved and eight lost. Dr. McClinton does not consider the operation to be so favourable to the child as some of its advocates have represented; and thinks that we cannot reckon with much certainty on saving the life of the infant unless the pelvic narrowing is but slight. But he regards the operation as most favourable for the mother, because it saves her from the dangers of protracted labour, and probably from ultimate delivery from high forceps operations or craniotomy.

PLACENTA PRÆVIA.

The statistics and the treatment of Placental Presentations have been so thoroughly gone into of late years, especially by Drs. Lee, Simpson, Trask, Churchill, and Barnes, that it would be difficult to imagine anything more that could be said on the subject. Nevertheless, a work lately published by Dr. Read of Philadelphia ought not to be passed unnoticed, because it is, perhaps, the most complete and elaborate collection of authentic facts relating to placenta prævia which has yet been published. The cases of placenta prævia which he has been able to collect amount in all to 1628, and of these 380 died; about 1 in $4\frac{1}{2}$. Dr. Read calculates that the average frequency of placental presentations is once in twelve hundred cases. Of the entire number of cases tabulated by Dr. Read, more than two-thirds come under the denomination of partial presentation—as Dr. Read remarks: “Showing most conclusively, that the method proposed by Professor Simpson will be available in only a small fraction of cases, and that the old practice of turning and delivering by the feet, without disturbing the connections of the placenta any more than is necessary for the purpose, must, after all, be our main resort, and the method which, in the mass of cases coming under our charge, will most likely be required.” With regard to the effects of separation of the placenta, Dr. Read has noticed this remarkable fact, that there are fewer deaths proportionately where, after artificial separation of the placenta, the child is born by the natural labour-pains, than where, with spontaneous separation, the child has to be delivered artificially. He considers it proved beyond a doubt that it is not the separation which puts an end to the flooding; “but that when this has been done, the uterus is put in a condition for its contractile power to operate to the best advantage; and if enough vitality remain in the system to insure condensation of its walls, the obliteration of the vessels cuts off the supply of blood and the hæmorrhage is at an end.”

CÆSAREAN SECTION.

The records of Cæsarean Operations during the past twelve months show, as usual, a greater proportion of successful cases with continental than with British practitioners. Amongst the former, Dr. Pagenstecker publishes the particulars of twelve cases. Two-thirds of these were the result of osteo-malacia, a disease which appears to be rather common in the neighbourhood of the author's residence (Elberfeld), and chiefly affects poor, ill-fed women, living in damp, badly-ventilated houses in large towns. Out of the twelve cases, seven mothers and eight children died. It should, however, be mentioned that only four of the mothers were in good condition before the operation. Of the seven cases fatal to the mother, the cause of death was in one rupture of the uterus, in one marasmus from osteo-malacia, in two exhaustion from the same cause, in two hæmorrhage, in one purulent peritonitis. The result of the operation was generally much better when it was undertaken before rupture of the membranes. Under other circumstances, the prostration, exhaustion, and want of contractility of

the uterus, exercised a marked effect also in leading to an unfavourable result. M. Juran gives a successful case of Cæsarean section, in which he operated on a woman, aged 27, with a pelvis measuring about two inches and a half in the conjugate diameter. In England, this woman would probably have been delivered by craniotomy. Some fever and peritonitis followed, but ultimately both mother and child did well. In Great Britain, three cases are recorded. One of these is given by Dr. David Johnson in the *Lancet* for Nov. 1st, 1862. The patient was affected with rickets, and the conjugate diameter of her pelvis measured two inches and a half. When first seen, she had been in labour twelve hours, was depressed and restless, and the pains had ceased. The hand and cord were presenting. Turning was attempted, but without success. Craniotomy was then performed; but it was found impossible to extract the head. Finally, the Cæsarean section was had recourse to. The patient died forty-six hours after the operation. The two other cases present several points of similarity. One occurred in the practice of Dr. Dyce of Aberdeen. The other came under my own notice at the Bristol General Hospital, and was operated on by Mr. Coe, the senior surgeon. Both patients were about four feet high; had been in labour some hours, but showed no signs of exhaustion. In the first, the conjugate diameter of the pelvis was two inches; in the second, rather less. In the first, delivery was attempted by turning and craniotomy; and when this was found to be impracticable, the Cæsarean operation was performed. In the second, this operation was at once had recourse to, without attempting to deliver in any other way. There was no hæmorrhage in either case; but in both vomiting continued without intermission after the operation until death occurred, in the first forty-three hours, and in the second forty-two, after the operation. The child, in the latter case, was saved. M. Pihan-Dufeyllay gives a carefully arranged list of eighty-eight cases of Cæsarean operation, which are all that he has been able to obtain records of, since 1845. Of these, fifty recovered and thirty-eight died. The author clearly shows, by his statistics, that the duration of the labour before the operation has a great deal to do with the ultimate results of twenty-nine successful cases; the powers were preserved in twenty-four; in twenty, the duration of labour was under twenty-four hours. Of nineteen fatal cases, the powers were failing or gone in fifteen, and in eleven cases the labour had lasted more than twenty-four hours. M. Pihan-Dufeyllay concludes that the Cæsarean section, performed under favourable conditions, gives nearly seventy-five per cent. of recoveries. The conclusion to be deduced, both from the cases mentioned above and from those collected by this author, is that the operation should be performed as soon as the diagnosis is clear, and the impossibility of delivery by any other method is recognised.

BLOODLETTING AND CHLOROFORM IN PUERPERAL CONVULSIONS.

During the last quarter of a century there has been a great change in the method of treating diseases in general, but especially those of an acute character. Formerly, the physician looked upon a disease as an enemy which had taken possession of the system, and which it was his business to knock down by bleeding *coup sur coup*, and to starve out by low diet. Now, on the contrary, he endeavours to strengthen the system, by throwing in supplies of food and stimulus, so as to enable it to resist and ultimately expel the invader. In fact, his chief duty now is to perform the function of a “judicious bottle-holder.”

I shall not stop here to discuss the relative merits

of these opposite plans; suffice it to say that the latter is now almost universally adopted in midwifery as well as in medicine; and in many instances, no doubt, to the great advantage of the patient. But not in all: on the contrary, I believe we are at present in great danger of undervaluing, or even altogether abandoning, a therapeutic agent which is sometimes of the greatest value.

It is a good thing, no doubt, to have abolished the use of the lancet in puerperal fevers, and to have substituted chloroform for it in the treatment of rigidity of the soft parts during labour; but to discard it in puerperal convulsions is to throw away, as I believe, one of the most valuable resources of our art. The testimony of obstetric authors has, until lately, been so universally and so decidedly in favour of the lancet in this disease, that it is difficult to account for the comparative disuse of it at the present time, upon any other supposition than that fashion has set in a contrary direction. It is now very much the fashion to substitute chloroform for bleeding in puerperal convulsions, but the practice is based on evidence which is not very satisfactory as compared with that which can be adduced in favour of the old system. Cases by twos and by threes have been published by various practitioners during the last two years with a view to prove the efficacy of chloroform in puerperal convulsions. But many more have been brought forward on the other side in favour of bleeding. Behm has published the particulars of 20 cases so treated. Out of these 17 mothers recovered, and 12 children were saved. Dr. Ramsbotham also has given his verdict very conclusively in favour of bleeding. I lately published 11 cases of eclampsia which had occurred in my own practice. Out of these, 10 mothers and 7 children were saved. In all of these bleeding was the chief remedy, and in most it was speedily followed by very marked and decided benefit. The appearance of these cases in the *BRITISH MEDICAL JOURNAL* led to the publication in the same *JOURNAL* of five others by Mr. Jones, of Cleobury Mortimer. All of these were treated in the same way, and terminated favourably. But the most conclusive testimony in favour of bleeding is that of Professor Depaul, of Paris. He states that experience derived from a large number of cases, induces him to regard bleeding as the most powerful means of arresting puerperal convulsions. "Bloodletting," he says, "unless copious, does little good." He begins by abstracting sixteen ounces of blood. If this do not diminish the frequency of the fits, at the end of half an hour he prescribes a second bleeding. Speaking of the comparative merits of bleeding and chloroform, he gives the case of a woman who was attacked by puerperal convulsions, and was kept for four hours under the influence of chloroform, upwards of three ounces having been used. Instead of becoming fewer and less severe, the attacks became more violent and numerous, although the patient had been delivered for some hours. M. Depaul then caused her to be bled twice within half an hour, and the convulsions ceased. A similar instance of the success of bleeding in arresting convulsions after the failure of chloroform is given by Dr. Bruce in the *Edinburgh Monthly Journal* for September 1861.

Whilst giving this testimony in favour of bleeding in puerperal eclampsia, I do not intend to detract, in the least, from the merits of chloroform as a palliative, as, in fact, the most effectual sedative we know of, for mitigating the severity of the fits and tranquillising the patient whilst artificial delivery is being effected; or, again, as a curative in those exceptional cases of purely reflex convulsion, occasioned by great irritation of the uterus or some other organ.

But there is no good reason for believing that its *modus operandi* is different from that of any other sedative; I

mean, that it can remove that condition of the kidneys from which arises that state of toxæmia that, in nine cases out of ten, causes the disease. It has been attempted to be shown that chloroform, because it produces a transitory diabetes mellitus, can cure convulsions by preventing the change of urea into carbonate of ammonia. But theoretical reasoning of this kind, deduced from animal chemistry, ought to weigh little against the direct proof that practice affords of the efficacy of bleeding in diminishing the albuminuria so characteristic of this disease. In several of my own cases, the convulsions abated, and the albumen in the urine diminished, *pari passu*, in a short time after venesection. But the most conclusive case of the kind which I know is one which my brother, Mr. S. H. Swayne, recorded in the *BRITISH MEDICAL JOURNAL* for June 20th, 1863. A woman, in the seventh month of her pregnancy, was attacked with puerperal convulsions, for which blisters, cold to the head, purgatives, and enemata were administered without effect. The urine, on being examined, contained so large a quantity of albumen, that the deposit formed by it occupied about five-sixths of the whole bulk of the fluid examined. She was bled on the next day to twenty-five ounces. No more convulsions occurred. Some urine passed within twenty-four hours after the bleeding was examined, and the albumen was found to occupy only one-sixth of the whole volume after subsidence. Although the fœtus appeared to be dead, no attempt was made to deliver, because there was no dilatation of the os uteri. The woman went on well for twelve days, when labour set in, and terminated favourably, without convulsions, in the birth of a dead child, somewhat decomposed. My brother remarks respecting this case, that "No other exciting cause for the convulsions beyond the uræmia could be discovered; and that the presence of the fœtus in the uterus had little share in bringing them on or maintaining them, would seem to be shown by the cessation of the convulsions and of the albuminuria, notwithstanding the presence of a dead child in the uterus, and by the uterus remaining quiescent for a fortnight after the first fits. That the improvement was due to the measures employed, especially to the bleeding, can, I think, scarcely admit of a doubt."

PELVIC HÆMATOCELE.

Considerable attention has been directed of late years to a somewhat obscure affection, which consists in an extravasation of blood into the pelvic cavity in the immediate neighbourhood of the uterus. This affection has been very fully investigated during the last two or three years, and several memoirs upon the subject have been published, especially by Professor Braun of Vienna, Dr. J. Matthews Duncan of Edinburgh, and Dr. M'Clintock of Dublin. The disease has been termed *peri-uterine* and *retro-uterine* hæmatocele; but as the extravasated blood does not always lie either around or immediately behind the uterus, Dr. M'Clintock prefers the term *pelvic hæmatocele*. The effused blood may lie either within or external to the peritoneal sac. The sources of the hæmorrhage appear to be various. The blood may escape from the Fallopian tube, being either an exhalation from its mucous membrane, or coming through the tube from the uterus; it may proceed from the ovary, as a result of hyperæmia during the process of ovulation; it may arise from laceration or rupture of the utero-ovarian vessels contained in the broad ligaments; or it may be a sanguineous exhalation from the peritonæum itself. In the majority of cases the disease is what has been called *metrorrhagic*, and is an accompaniment of menorrhagia, the hæmorrhage proceeding from the ovarian vessels at the menstrual epoch. The disease appears sometimes to arise from coitus, or ex-

posure to cold during menstruation. The symptoms are those of peritonitis of a somewhat localised character, such as hypogastric pain and tenderness with fever, and the formation of a tumour behind the uterus or in the hypogastrium.

The proper treatment, in the first place, is to obviate the shock and depression which are the immediate results of the hæmorrhage; secondly, to combat the reaction and inflammation which supervene; thirdly, to remove, if possible, the tumour which remains. Authorities are much divided as to the best method of fulfilling this last indication. Some, as Professor Braun and Dr. Duncan, for instance, recommend puncturing the swelling; others, and amongst them Dr. McClinton, prefer the expectant plan, and do not advise opening the cyst except in the chronic stage, and then only when it gives rise to great pressure and mechanical inconvenience. The propriety of any operation, however, must depend very much upon the size and situation of the swelling.

THROMBOSIS AND EMBOLIA.

The phenomena of thrombosis and embolia have of late years attracted much notice, both in this country and on the continent. Valuable essays on this subject have appeared at different times from the pens of Virchow, Baron, Paget, Kirkes, Simpson, and others; and in consequence of these researches, morbid phenomena, some of them imperfectly known to the ancients, are now becoming thoroughly understood. These are especially interesting to the accoucheur, because the puerperal state is one that, under certain conditions, powerfully predisposes to these affections. The condition of the blood is apt to become deteriorated, from flooding or the imbibition of poison, during or after labour, and a tendency to the formation of clots in the living body is produced. When clots are once formed, they are liable to be carried away with the current of blood, and to give rise to embolism by plugging some more or less important vessel; so that in the end they may cause dangerous consequences, or even death. During the last year, Dr. Robert Barnes communicated an elaborate essay on this subject to the London Obstetrical Society. This was published in the last volume of *Transactions*, and may be read with much profit by all who are interested in the subject. Dr. Barnes has taken pains to collect the particulars of several cases which have been recorded by various authors. These he has arranged under two heads; viz., Table 1, "Cases of Systemic Arterial Thrombosis or Embolia;" and Table 2, "Cases of Pulmonary Thrombosis or Embolia." There are fifteen cases of the first and fourteen of the second. As an illustration of the first kind, the author relates a case (in his own practice) in which a patient was seized, a few days after labour, with symptoms apparently indicating uterine phlebitis. On the fourteenth day sudden severe pain came on in the right leg, and this was followed by loss of pulsation in the arteries of the leg, swelling, gangrene, and death. A very good example of the second kind was published by Dr. Cowan in the *Edinburgh Medical Journal* for November 1862. The case is as follows. A primipara, aged twenty-two, died very suddenly, eighteen days after what appeared to be a perfectly natural labour. After sitting by the fireside for some time she complained of feeling fatigued, and said she would go to bed. As she attempted to do so, she uttered a smothered cry, fell to the ground, and in a short time expired. At the *post mortem* examination, the brain was found to be much injected, but healthy; the left side of the heart was empty and firmly contracted; the right greatly distended with fluid blood. There were three ounces of fluid in the pericardium. Both lungs were highly congested; a fibrinous clot, an

inch and three-quarters in length, was found in the pulmonary artery, extending into its left branch. The clot completely occupied the calibre of the vessel, and required to be removed by the fingers.

PHLEGMASIA DOLENS.

Phlegmasia dolens is a puerperal disease somewhat allied to the preceding, and its pathology has lately been the subject of some discussion. Dr. Mackenzie, in the *Lettsomian Lectures on Midwifery* lately delivered before the Medical Society of London, states his belief, as the result of clinical facts alone, that the disease originates in the blood, and is not due to local causes. He states that these views are supported by the facts of cases of phlegmasia dolens in non-puerperal individuals, and he has collected forty instances of this kind. He considers that phlebitis, occurring as a local disease, is never associated with the phenomena of phlegmasia dolens, but that, when it arises from general and constitutional causes, the lesion of the veins is very commonly accompanied with the symptoms of phlegmasia dolens.

On the other hand, Dr. Tilbury Fox, in a paper read by him last year before the Obstetrical Society, brings forward cases to prove that lymphatic obstruction is sufficient and alone necessary to give rise to phlegmasia dolens, and arrives at the following conclusions:—1. That phlegmasia dolens is a local disease. 2. No general symptoms need be present; this implying absence of blood poison. 3. Phlebitis, however produced, cannot give rise to phlegmasia dolens, but oedema only. 4. Phlegmasia dolens may occur in, but forms no necessary part of, blood poisoning, such as tends to phlebitis. 5. Obstruction to the main lymphatic channels alone is capable of giving rise to white leg, and acts by preventing the removal of the lymph from the affected limb. These are the principal conclusions of the author, and, to a certain extent, they corroborate the observations of some of the older authors, such as Hull, Trye, and White. The pathology of this disease is still, in many respects, in an unsettled state, and, before it is fully made out, must be based upon a much greater number of *post mortem* observations, opportunities for which, however, rarely occur, in consequence of the disease being one which seldom proves fatal.

OVARIOTOMY.

The subject of ovariectomy is one that belongs almost as much to surgery as to midwifery, but yet it is of so much importance, and so much has been said and written about it lately, that I ought not to pass it by *sub silentio*. Ovariectomy is an operation of British origin. It was first proposed by Dr. William Hunter, was warmly advocated by John Bell, and put into practice by McDowell, an American pupil of the latter. The first time that the operation was performed in Great Britain was in the year 1823, and the operator was Mr. Lizars, of Edinburgh. Ovarian dropsy is a disease of so distressing a nature, so constantly terminating in death after prolonged suffering, that we cannot wonder at the readiness with which surgeons should undertake a formidable operation for its cure. According to the statistics, even of those who are opposed to the operation, more than 80 per cent. of those cases that are left to nature, or only treated by palliative means, die within, on an average, a year and three quarters from the commencement of the disease. Accordingly, it was to be expected that an operation, which could be proved to be successful in a majority of cases, should meet with increasing favour from the profession. But yet the fact should not be lost sight of that it is a formidable operation; it kills or cures; as Mr. Erichsen remarks of it, *cita mors venit aut victoria laeta*. If successful, it effects a

radical cure: if unsuccessful, it usually causes death in a few days. We should therefore hail with joy any improvements in the method of performing it which may render its success more certain. Some valuable additions to our knowledge in this respect have been recently made, especially by Mr. Spencer Wells, Mr. I. Baker Brown, Dr. Tyler Smith, and Dr. Clay. Mr. I. B. Brown has published a work on ovariectomy—the result of thirty years' experience—in which he gives an account of 42 cases operated on by him. Of these there were 22 successful, and 20 unsuccessful cases. The author accounts for the comparatively small number of recoveries by the fact, that several of the cases operated upon happened many years ago, before the indications for the operation were so well understood as they are now. His later experience gives a far higher percentage of recoveries than his earlier, because he has learnt to reject cases where the health has been much broken down, where tapping has been frequently performed, or where the disease is of a colloid nature, etc. Adhesions of the ovarian tumour to the surrounding parts are not an obstacle to the operation, but they certainly render it less favourable. They were present in 13 of the successful, and in 17 of the unsuccessful cases. Mr. I. B. Brown advises enclosing the pedicle in a clamp, which is to be placed as near the tumour as possible, and to be kept externally. This is to be removed in two or three days. Mr. Brown has also laid before the Obstetrical Society the particulars of 19 cases operated on at the London Surgical Home. Of these 13 recovered and 6 died, thus showing a greater percentage of cures than in the earlier cases. Mr. Spencer Wells, in the course of last year, published the particulars of 9 cases, in which he had performed ovariectomy. These when added to those which he had previously published, made a total of 42 cases; of these 26 recovered and 16 died. Mr. S. Wells prefers operating by a small incision. When the pedicle is long he secures it by a clamp, and when it is short he either ties the vessels only (not the pedicle), or uses the *écraseur*, acupressure, or the wire compress of Mr. Dix of Hull.

During the course of last year also, Dr. T. Smith communicated to the Obstetrical Society some additional cases of ovariectomy performed by himself, and stated that he had operated, in all, upon 12 cases. Of these, 3 died and 9 recovered. One of the most remarkable features in these cases was, that in two of them the pedicle was tied with a silk ligature, and then both the pedicle and ligature were cut off as short as possible and dropped into the abdomen, without producing any bad result. Few, however, or perhaps none, have had so large an experience of ovariectomy as Dr. Clay, of Manchester, who, in a paper communicated to the Obstetrical Society, stated that he had operated in 104 cases. Of these, 72 recovered and 32 died. Dr. Clay prefers the large abdominal incision, and returns the pedicle with the ligature into the abdomen. Dr. Clay's statistics are certainly in favour of his method of operating; although by far the majority of authors now advocate the small incision.

Notwithstanding that ovariectomy is now generally received in England as a justifiable operation, it has had from time to time to encounter the uncompromising hostility of some eminent accoucheurs. Dr. Robert Lee, in a paper communicated to the Obstetrical Society, stated very fully and forcibly all that could be said against it, and the reading of his paper gave rise to a long and rather acrimonious discussion, which ended, as such discussions usually do, in both parties remaining of the same opinion as previously. At the time that this took place, the *Lancet* made some remarks on the question, which are so judicious that I cannot forbear quoting them. "Practitioners have

long been divided with respect to the value of ovariectomy as a surgical proceeding. Is any further light thrown upon this subject by the discussion in question? We can scarcely think that there is. The tendency on the one side was to over-estimate its value; on the other, unjustly to depreciate it. What is really wanted, is a more clear description of those cases in which the operation may be safely practised. That we are deficient at the present time with regard to the diagnosis of these cases the impartial observer will admit. . . . One result, however, of the recent discussion will not be without benefit. It will show that whatever has hitherto been the success of ovariectomy in the hands of certain operators, the diagnosis of ovarian disease is by no means without its difficulties nor the 'simple' operation without its complications and dangers. The truth, as is usually the case in such questions, lies probably between the two extremes. Under favourable circumstances and in well-defined cases, ovariectomy is a valuable operation. That it may sustain its reputation, it is essential that its advocates should be less sanguine in expressing their opinions. It is a duty not less incumbent upon the opponents of the operation to examine with candour the evidence in its favour." Most of us, I think, will be ready to endorse these statements of the *Lancet*, and to allow that when due care is shown in the selection of cases, ovariectomy is a perfectly justifiable operation. This is proved by the more recent statistics of the operation, which show that at least two-thirds of the cases recover. It is no small argument in favour of the operation, that it is now becoming adopted in France, where novelties of British origin generally meet with anything but a ready acceptance, and it has been performed by Professor Nélaton and other distinguished French and Belgian surgeons.

THE PROGRESS OF OBSTETRIC SCIENCE.

If we review the progress of obstetric science during the present century, we must, I think, be struck with the fact that, in the treatment of labour and also of uterine diseases, the tide of opinion has shown a remarkable tendency to ebb and flow in a similar manner to what we have already noticed with respect to the treatment of disease in general. The practice of medicine, in the present day, has become, in a great measure, expectant; and is a decided contrast to the active, or "heroic" treatment, as it used to be called, of our fathers. On the contrary, the practice of midwifery has become much more active in our day, and we trust much less than our fathers did to the powers of nature. A similar change in the current of opinion, but in a contrary direction, was observed during the last century.

In the early part of the eighteenth century, when the doctrines of the iatro-mathematical school were so prevalent, and it was so much the fashion to resolve any physiological process into a mathematical problem, parturition came to be regarded too much as a mere mechanical process. The discovery of the forceps gave an impetus to these views, and the result was, that the progress of nature was often unduly interfered with, and instruments were resorted to with rash and culpable frequency. A reaction against these doctrines set in towards the end of the last century. This movement was due in a great measure to the influence of the illustrious Denman—a name which will ever be honoured in the annals of midwifery—as marking a new and improved era in its history. By his example and precept, accoucheurs were taught to place implicit confidence in the powers of nature, and never to resort to instruments except they had the most plain and palpable evidence that she was unequal to her task. These doctrines of non-interference were, however, pushed to their extreme point by Denman,

and may be said to have culminated in that rule, so fraught with danger, which he laid down with respect to the use of the forceps, viz., "that the head of the child shall have rested for *six hours* as low as the perineum, that is, in a situation which would allow of their application before the forceps are applied, although the pains should have altogether ceased during that time." On the whole, however, the influence of Denman and his contemporaries had a most salutary effect on the practice of midwifery, and it soon came to be received as an axiom that "meddlesome midwifery is bad." This influence has been felt more or less during the first half of the present century, but its power has been gradually lessening during the last twenty years, very much, I believe, in consequence of the opposing influence of another master-mind. I allude to the distinguished Professor of Midwifery at Edinburgh. Dr. Simpson's wonderful fertility of invention, his ingenuity in devising new and startling expedients, and his happy audacity, if I may use the term, in putting these into practice, as well as his unremitting efforts to shorten the duration and abolish the pains of parturition, have all no doubt greatly contributed to produce this result. For instance, chloroform is constantly given to allay the pains of labour, and in consequence ergot of rye is used more frequently than it otherwise would be, in order to remove the atony of the uterus, which occasionally follows. We often hear of the employment of the colpeurynter to dilate the os uteri in cases where the accoucheur would formerly have trusted with perfect confidence to time and the powers of nature. The more frequent employment of the forceps is strongly advocated by many accoucheurs; and papers have been read at various obstetrical societies to prove the superior results which follow from using this instrument once in every ten or twenty, instead of once in every two or three hundred cases, as formerly. Turning, also, is coming very much into use in cases of slight disproportion, which some twenty years ago would have been left to nature, with the possible alternative of the forceps. Many of these operative proceedings are without doubt improvements of the greatest value, when they are adopted by skilful practitioners; one of them, in particular, I am quite convinced, is so—I mean the more frequent use of the forceps. I am far from advocating that the forceps should be used so often as once in ten or twenty cases; but yet I believe that, when properly employed, it is far less dangerous to use this instrument, than to allow the child's head to remain immovable for three or four hours in the cavity of the pelvis. Nevertheless, when we take into consideration the amount of skill which can reasonably be expected of the greater number of practitioners throughout the country, many of whom, perhaps, are young men just entering practice, and who have attended, probably, no more than twenty midwifery cases, I cannot avoid the belief that the old rule of practice, which condemns so unhesitatingly "meddlesome midwifery," is a safer one to go by, than some of the more modern doctrines which are so suggestive of interference with nature.

But the treatment of uterine diseases has furnished, perhaps, the best example in the present day of what may well be termed the "*medicina perturbatrix*." Within the last thirty or forty years improved means of diagnosis (I allude especially to the use of the speculum and uterine sound), have caused an immense advance in our knowledge of the pathology of these diseases. In consequence of this, a number of new and untried remedies came into use; and as is usually the case with new discoveries, at first were greatly over-rated and most indiscriminately employed. Hence arose the flagrant abuse of the speculum, which was so prevalent a few years since, and the

host of experiments of the roughest kind to which the uterus has been of late years subjected. We often used to hear that for comparatively trivial ailments, this organ had been probed, incised, scraped out, burnt with the strongest caustics, nay, even seared with white-hot irons. The remedy, doubtless, in many of these complaints was much worse than the disease, but thanks to the writings of pains-taking and sober-minded observers such as Dr. West, the profession has, of late, come to estimate such remedies more at their proper value, to use them in a more legitimate manner, and in the majority of cases to substitute for them milder methods of cure. Although, in the treatment of labour, operations of various kinds are more frequently resorted to now than they were thirty years ago, there is one operation which happily is an exception to this rule, and it is one which ought to be most repugnant of all to the feelings of the operator, because it sacrifices, not a limb only, but a life.

Craniotomy is undoubtedly employed less frequently now than formerly. This result is, in a great measure, due to the earnest and conscientious appeals of modern accoucheurs. As an illustration, I may refer to a paper by Dr. Tyler Smith, on the "*Abolition of Craniotomy when the Fœtus is Living and Viable*"—a paper which was one of the first and most important communications laid before the London Obstetrical Society. This great and undoubted improvement in practice far outweighs any of the minor changes for the worse, which accoucheurs of the old school may fancy they observe in modern obstetrics. I cannot, therefore, agree with the *American Medical Times* in the gloomy view it takes of the present condition of midwifery, when it remarks that "the change in obstetrical practice which we have indicated as now in progress, must be witnessed with alarm by every believer in conservatism in medicine." The present era has in many respects been a remarkable one in the annals of midwifery. There has been a complete revolution in an established routine of practice that for nearly half a century had held undisputed sway. Old ideas and old methods of action have given place to new ones that have, for a time, been exalted into undue prominence; but these will ultimately take their legitimate place and find their proper level. In the meantime, we have the consolation of reflecting that although a desire to spare pain may have led in some instances to an injudicious interference with nature, the still more laudable desire to save life has undoubtedly tended to diminish the frequency of the most horrible of all operations, and thus to remove what has long been the opprobrium of British obstetric art.

RELATION BETWEEN ATOMIC WEIGHT AND SPECIFIC GRAVITY. We understand that a remarkable essay has been sent in to the Royal Society of Edinburgh to compete for a medal which that society has to award. It is designated "*On Hydrogen in its Relations to the Organic Elements*." Its characteristic is that the author (who gives his name only in a sealed envelope) proposes in it a new method of synthesis in chemistry, whose claims he bases on such facts as these, that the formulae of all those substances which possess eminent properties in the economy of nature when constructed according to this method present in the structure of their molecules remarkable geometrical and physical properties. But what he specially claims for it as a criterion is this, that it gives such molecules for liquid and crystalline substances that simply their atomic weights when divided by a constant give their specific gravities, as found by the balance without any reference to atomic volume at all. It is a work of immense labour, extending to upwards of two hundred quarto pages, and is illustrated by a multitude of diagrams. (*Chemical News*.)

British Medical Journal.

SATURDAY, AUGUST 15TH, 1863.

THE BRISTOL MEETING.

THE Thirty-first Annual Meeting of the British Medical Association has been held; and the pleasures anticipated for many months by its visitors, and the anxieties of those who had the arrangement of its details, have become things of the past. Not altogether so, however; for we are sure that the pleasant reminiscences of the Bristol gathering will long survive in the minds of those whose good fortune it was to receive the hearty welcome and hospitable reception of their brethren; and that the local members, on whose shoulders lay the task of making the meeting what it was, will with good conscience congratulate themselves on the successful termination of their labours, and take in good faith the assertion made by some of their guests, and which we heartily endorse, that the Bristol meeting was second to none which have preceded it—nay, that it even surpassed the metropolitan meeting of last year in splendour and hospitality. The worthy President no doubt expressed the natural feeling of the Bristol members, when he alluded, in the opening sentences of his address, to the “trying circumstances” under which the meeting was held. But the Bristol men, worthily represented by their President and by their able and zealous Secretary, Dr. Marshall, have not only fully sustained the honour of their city, long famed for the energy and liberality of its inhabitants, but have set an example, to surpass which will be no light task.

Of the President especially, a few words must be said; not in the spirit of flattery, but in all sincerity. His eminence as a physician, the high esteem in which he is held both by his professional brethren in the locality and by his fellow-citizens, were last year alluded to as fitting him in an eminent degree to fill the office of President of the Association with dignity and grace. How fully the expectations then raised have been carried out, those who were present at the meeting know well. His excellent inaugural address, his firm and judicious, and at the same time courteous, management of the proceedings of the meeting, and the generous hospitality which he extended to the members, both at his table and in the splendid entertainment on the evening of the second day, place him in the foremost rank among those who have occupied the presidential chair in this, or, indeed, in any similar Association.

In the preparations made by the local members for the social enjoyments of their visitors, the meet-

ing was a great success; nor was it less so in the quantity and quality of the intellectual food provided. The philosophical address of the President, which might with advantage have been listened to by a public as well as by a professional audience; the masterly exposition of the facts known with regard to variola ovina, brought forward by Dr. W. Budd; and the able addresses of Mr. Prichard in Surgery, of Dr. Herapath in Chemistry, and of Dr. Swayne in Midwifery, require no more than a passing word of praise in this place. They are placed in our pages before every member of the Association; and those who were absent will be able, each for himself, to ratify the opinion of these effusions expressed by those who were present.

Of papers promised both by London and by provincial practitioners, the supply was abundant and the quality excellent. Several essays, indeed, whose authors were prevented from attending the meeting, were, in fairness, postponed until an opportunity of reading had been afforded to all the authors who were present; and, when these had concluded, the limited time remaining no longer allowed the papers of the absentees to be brought forward. The associates, however, will in due time have the advantage of perusing them in the pages of the JOURNAL.

While the members accepted and enjoyed the social and intellectual feasts provided for them, they did not fail to take the opportunity afforded by the meeting of manifesting their interest in certain points having a bearing on the welfare of their brethren, absent as well as present.

On the first day of the meetings, Dr. Richardson brought forward a motion for the appointment of a Committee to examine into the possibility of establishing a Medical Provident Fund. The motion, seconded by Mr. Daniell, an old and earnest advocate of the principle that medical men should combine to provide for themselves when in misfortune, and for their widows and orphans, rather than depend on the charity of their fellows, received the unanimous support of the members present. We will only say here, that the movement thus inaugurated has our sincerest wishes for its success, and shall on all occasions receive such support as it may be in our power to give.

The treatment experienced by the medical officers of the army and navy received, as it has done heretofore, the attention of the Association. A paragraph specially referring to the grievances of this meritorious class of public servants was introduced into the Report of Council; and memorials to the War Secretary and to the First Lord of the Admiralty, briefly but ably introduced to the notice of the meeting by Mr. Husband, were unanimously adopted. It is to be trusted that these memorials, expressing as they do the desires of a body of men whose only wish is that right may be done, will be effective of

their object ; and that our brethren in the army and navy will once more have to recognise the successful exertions of the Association in their favour.

Second in interest to none among the resolutions brought forward, was that which was so ably offered to the meeting on Friday by Dr. Radclyffe Hall, and seconded by Dr. Richardson. In accordance with the proposal alluded to—which was, indeed, before being put to the vote, honoured by the specially expressed approbation of the President—a full meeting of the members declared their unanimous sympathy with three of their brethren in the Association whose injuries are too well known to our readers, and their unbroken confidence in the moral and professional character of these gentlemen. If anything were wanting to assure Dr. E. Waters, Mr. Adams, and Dr. Philbrick, that their reputation has at least not suffered through the persecutions to which they have been subjected, the unanimous and sincere vote of the Association at the meeting in Bristol will supply the deficiency.

Of the progress of the Association itself, as described in the Report of Council, little need be said, except that it is satisfactory. The metropolitan meeting of last year was followed by the addition of a large number of names to the list ; and, after deducting the members who have died or resigned, and those who have been erased in consequence of failing to pay their subscriptions, there remains a clear increase at the present time of about one hundred members over the numerical strength of the Association at the London meeting. The Branches continue to flourish and be useful ; and although, in the words of the Council Report, no new Branch has been actually formed, the application of the Bengal Medical Association to be adopted as a Branch was received with cordiality, and compliance with it was only deferred on account of some technical difficulties, which further negotiation will probably remove.

The General Secretary, Dr. P. H. Williams, after having held office for eight years, intimated through the Council his desire to resign, on account of the increasing pressure of his professional engagements. A vote of thanks for the courtesy which he has always exhibited was unanimously accorded to him ; and we are sure that those absent as well as those who were present will endorse the opinion there expressed of the gentlemanly bearing manifested by him towards all members of the Association with whom he has come into contact. His successor, Mr. Watkin Williams, has for several years been an active and zealous member of the Committee of Council, and has in his place there done good service to the Association ; and there is every reason for believing that, in the increased field of duty now open to him, he will amply fulfil the expectations of those who have elected him to his office.

The attendance at the meeting was most satisfactory. The list published at another page contains the names of 195 gentlemen ; but this does not represent the entire number, as the members, especially those residing in the locality, often fail to enter their names in the book provided in the reception-room. We learn, however, that the number present cannot have been short of 250 ; and that the large number of 214 were present at the dinner with which the proceedings were terminated.

The proceedings of the Bristol meeting have, we must repeat, though trying in their anticipation to some, been gratifying in their results to all. And who, after such gatherings as those of London and of Bristol, not to mention those which preceded them, can take such a narrow view of things as to ask concerning our Association—*Cui bono?* Is it nothing, that such meetings bring together members of our profession from all parts of the kingdom ; that there old friendships are renewed, that new ones are formed ; that asperities are worn down and obliterated ; that an opportunity is afforded for the exercise of the social feelings of hospitality on one hand and of gratitude on the other ; that such plans as that of a Provident Fund are devised ; that those needing sympathy and encouragement receive it ; that intellects are sharpened by friendly collision ; and that the members return to their homes and their duties better men morally, socially, and professionally ? Our readers can judge, from what they have heard and seen.

The Bristol meeting will not soon be forgotten ; and not only will the frequenters of the Association meetings have for the next year the pleasure arising from the recollection of their visit to the western metropolis, but also the anticipation of, we trust, a no less delightful visit to one of our time-honoured seats of learning—the University of Cambridge. Oxford has already received the Association twice, with open arms and liberal hand ; and Cambridge will, there is no doubt, notwithstanding the drawbacks so modestly set forth by Dr. Humphry when he proposed the place of meeting for next year, do her best endeavour that she shall be inferior to none among her predecessors in the grandeur and sincerity of her hospitality.

THE WEEK.

THE office of Surgeon to Her Majesty's Household is vacant by the death, at an advanced age, of Mr. Charles Phillips, who has held the appointment for many years. He succeeded his father in the office.

A new medical journal has appeared at Cagliari, called *La Sardegna Medica*.

THIRTY-FIRST ANNUAL MEETING

OF THE

British Medical Association.

Held in Bristol, 5th, 6th, and 7th August, 1863.

WEDNESDAY.

THE Committee of Council met at One P.M.; and the General Council at half-past Two.

At Four o'clock P.M., the first General Meeting of members was held in the Victoria Rooms, Clifton, which had been placed at the disposal of the Association for the three days of its meeting. The following members and visitors entered their names as being present.

Ackland, W. H., M.D., Bideford
 Alford, H. J., Esq., Taunton
 Alfred, S. S., Esq., London
 Bailey, C., Esq., Chippingham
 Ballard, T., M.D., London
 Barker, J., Esq., Coleshill
 Bartleet, E., Esq., Campden
 Bartrum, J. S., Esq., Bath
 Beddoe, J., M.D., Clifton
 Bell, the Rev. D., M.D., Goole
 Bleek, A., Esq., Bristol
 Bleek, C., Esq., Westminster
 Brittan, F., M.D., Clifton
 Brown, I. B., Esq., London
 Bryant, S., Esq., Bristol
 Budd, G., M.D., London
 Budd, S., M.D., Exeter
 Budd, W., M.D., Clifton
 Burder, G. F., M.D., Clifton
 Burroughs, J. B., Esq., Clifton
 Burrows, G., M.D., London
 Burt, G. R., Esq., Uminster
 Bush, W., Esq., Bath
 Callender, G. W., Esq., London
 Cartwright, P., Esq., Oswestry
 Cattell, T. W., Esq., Liverpool
 Cave, C. D., Esq., Clifton
 Clark, T. E., Esq., Clifton
 Clarke, W. H., Esq., Clifton
 Clayton, M. H., Esq., Birmingham
 Cockey, E., Esq., Frome
 Collins, C. H., Esq., Chew Magna
 Collyns, C. P., Esq., Dulverton
 Corbould, G. G., Esq., Bristol
 Cormack, J. R., M.D., London
 Cornwall, J., Esq., Glascock
 Cowan, C., M.D., Reading
 Crisp, N., Esq., Swallowfield
 Cross, W., Esq., Clifton
 Crossman, E., Esq., Hambrook
 Daniell, E., Esq., Newport Pagnell
 Davey, J. G., M.D., Northwoods
 Davies, D., Esq., Bristol
 Davies, W., M.D., Bath
 Davis, W. G., Esq., Heytesbury
 Day, H., M.D., Stafford
 Day, W. E., Esq., Bristol
 Dunn, R., Esq., London
 Ellis, R. W., Esq., Bristol
 Evans, J. J., Esq., St. Neots
 Evanson, R. T., M.D., Torquay
 Falconer, R. W., M.D., Bath
 Fayrer, G., M.D., Henley-in-Arden
 Fegan, W. B., Esq., H.M.S. *Dedalus*
 Fletcher, T. S., Esq., Bromsgrove
 Fleming, A., M.D., Birmingham
 Flint, R., Esq., Stockport
 Forsyth, J., Esq., London
 Fowler, R. S., Esq., Bath
 Fox, E. L., M.D., Clifton
 Fox, F. K., M.D., Brislington
 Freeman, G. D., Esq., Bath
 Fuller, W., M.B., Oswestry
 George, R. F., Esq., Bath
 Gibb, G. D., M.D., London
 Gilchrist, W., M.D., Torquay
 Goodere, H. H., M.D., Clifton
 Goodridge, H. F. A., M.D., Bath
 Gourlay, F., M.D., Weston-super-Mare
 Grace, H., Esq., Bristol
 Grant, A., Esq., London
 Green, T., M.D., Bristol
 Greig, C., Esq., Clifton
 Guthrie, the Rev. Canon, Bristol
 Hall, C. R., M.D., Torquay
 Hall, W. H., M.D., Bath
 Harper, C., Esq., Bathaston
 Hart, E., Esq., London
 Hastings, Sir C. M.D., Worcester
 Haward, E., M.D., London
 Hemming, J. H., Esq., Kimbolton
 Henry, A., M.D., London
 Herapath, W. B., M.D., Bristol
 Hewitt, G., M.D., London
 Hill, M. B., Esq., London
 Hinton, J., Esq., Hinton
 Holland, R. B., M.D., Bristol
 Hore, H. A., Esq., Bristol
 Humphry, G. M., M.D., Cambridge
 Husband, W. D., Esq., York
 Hutchins, W., Esq., Keynsham
 James, J. H., Esq., Exeter
 Jenks, G. S., M.D., Bath
 Jennings, J. C., Esq., Malmesbury
 Jotham, G. W., Esq., Kidderminster
 Keddell, G., Esq., Bristol
 Kelly, W. M., M.D., Taunton
 Lancaster, J., M.D., Clifton
 Lang, W., Esq., Bristol
 Laundson, F. P., Esq., Bristol
 Lee, H., Esq., London
 Leonard, C., Esq., Clifton
 Lingen, C., M.D., Hereford
 McIntyre, J., M.D., Odiham
 Mackenzie, F., Esq., Tiverton
 Mackenzie, M., M.D., London
 Macrorie, D., M.D., Mount Vernon, Stroud
 Markham, W. O., M.D., London
 Marshall, H., M.D., Clifton
 Martyn, R. W., Esq., Martock
 Martyn, S., M.D., Clifton
 Mason, F., Esq., Bath
 May, G., Esq., Reading
 May, G., Jun., Esq., Reading
 Mayor, E. S., Esq., Bristol
 Mellor, T., Esq., Manchester
 Moore, C. H., Esq., London
 Moore, G., M.D., Hastings
 Morgan, W. F., Esq., Bristol
 Nankivell, C. B., M.D., Torquay
 Napper, A., Esq., Cranley
 Nevins, J. B., M.D., Liverpool
 Nuneley, T., Esq., Leeds
 Ogilvie, W., M.D., Derby
 Paget, G. E., M.D., Cambridge
 Paget, W., Esq., Leicester
 Paine, W. H., Esq., Stroud
 Parsons, J., Esq., Frome
 Parsons, J., L.R.C.P.Ed., Bristol
 Pout, H., Esq., Watlington
 Prankerd, J., Esq., Langport
 Prichard, A., Esq., Clifton
 Pridham, C., Esq., Paignton
 Probert, J., Esq., Merthyr Tydfil

Property, J., Esq., London
 Radcliffe, C. B., M.D., London
 Richardson, B. W., M.D., London
 Roberts, W., M.D., Manchester
 Rooke, T. M., M.D., Cheltenham
 Routh, C. H., F.D., London
 Ruddock, R. B., Esq., Bristol
 Rumsey, H. W., Esq., Cheltenham
 Sankey, W., Esq., Dover
 Saunders, G. S., M.D., Devon County Asylum
 Sawyer, T., Esq., Clifton
 Scott, A. J., M.D., Tiverton
 Seaton, J., M.D., Sunbury
 Shapter, T., M.D., Exeter
 Sheppard, W., Esq., Bristol
 Skeate, G., Esq., Bath
 Skinner, T., M.D., Liverpool
 Sleeman, P. R., Esq., Clifton
 Smerdon, C., Esq., Clifton
 Smith, E., M.D., London
 Smith, T., M.D., Cheltenham
 Smith, W., Esq., Redditch
 Soden, J., Esq., Bath
 Southam, G., Esq., Manchester
 Spender, J. K., Esq., Bath
 Steel, S. H., Esq., Abergavenny
 Steele, A. B., Esq., Liverpool
 Steele, C., Esq., Clifton
 Stewart, A. P., M.D., London
 Stone, R. N., Esq., Bath
 Stookes, A., M.D., Liverpool
 Swayne, J. G., M.D., Clifton
 Swayne, S. H., Esq., Clifton
 Swete, E. H., Esq., Wington
 Swift, H., Esq., Liverpool
 Thorne, G. L., Esq., Holcombe Rogus
 Thurnam, J., M.D., Devizes
 Tunstall, J., M.D., Bath
 Underhill, T., Esq., Tipton
 Vinen, E. H., M.D., London
 Vose, J., M.D., Liverpool
 Ware, J., Esq., Clifton
 Waters, A. T. H., M.D., Liverpool
 Waters, E., M.D., Chester
 Webb, W., M.D., Wirksworth
 Wedd, R., Esq., Westbury
 Weir, A., M.D., Malvern
 Wells, T. S., Esq., London
 Westall, E., M.D., Caterham
 Wilkinson, M. A. E., M.D., Manchester
 Willett, M., Esq., Bristol
 Williams, E., M.D., Clifton
 Williams, J., M.D., Malvern
 Williams, P. H., M.D., Worcester
 Williams, T. W., Esq., Birmingham
 Wilson, F., Esq., London
 Wilson, E. T., M.D., Cheltenham
 Wilson, H., Esq., Bristol
 Wilson, H., Esq., Runcorn
 Wilson, J. G., M.D., Clifton
 Wollaston, R., M.D., Stafford

INSTALLATION OF THE PRESIDENT.

Dr. BURROWS, the President for the past year, took the chair for the purpose of resigning his office and introducing his successor. He said that the happy reminiscences of the last meeting enabled him to resume for a short period the important duties in that chair with increased pleasure, and emboldened him before he retired from it to offer to them a few observations. He thought it was impossible for any of them to look back upon the events of the past year without finding some sources of satisfaction. The meeting of their Association in the metropolis for the first time was a great event. It marked an era in their annals. Those friends of the Association who were bold enough to propose that they should meet in the metropolis—those who conceived the idea and made the proposition—he knew that they considered it was to be regarded somewhat in the light of an experiment; and those upon whom it devolved to endeavour to carry out and to bring to a successful issue that experiment, entered upon their duties with considerable trepidation and apprehension, lest they might not bring that experiment to a successful issue. But he thought, if they considered what had taken place at that meeting, whether in a scientific, a professional, or a social point of view—he thought they, as members of the Association, had reason to congratulate themselves. [*Hear, hear, and cheers.*] Those who had the pleasure of hearing, and those who subsequently had the satisfaction of perusing, the eloquent and instructive discourses on medicine, surgery, and physiology, as well as the numerous interesting and original communications made by members of the association, whether with regard to one point or the other, had grounds, he thought, for satisfaction; and he trusted that, with respect to the scientific point of view, those addresses and communications had raised the character of the Association, and put it in a right position in relation to the learned and scientific bodies of the country [*hear, hear*]; and, looking at the meeting in a professional point of view, considering what a large assemblage of members took place in the metropolis—what an unusual number of gentlemen from the country were there assembled—he thought they must all rejoice that the College of Physicians and College of Surgeons took the wise steps they did on that occasion, and that they

received the members with so much courtesy and with a splendid hospitality. He thought their conduct upon that occasion was not only wise; but that it was attended with beneficial results, inasmuch as it tended to bring into more harmonious understanding the constituents of the governing bodies. [Applause.] And, last, but not least, they must not disregard the effects of that meeting in a social point of view. There was a time when the lines of demarcation between the metropolitan and provincial part of the profession were well-defined; but, happily, for some years past, those lines of demarcation had been gradually more and more obliterated. That obliteration had arisen from various causes—partly, perhaps, from the increased means of communication through different parts of the country by the railway; and, partly, perhaps, through rapid interchange of ideas taking place between them through the periodical medical press. The metropolitan meeting, then, he conceived, had a tendency to annihilate the distinction between the metropolitan and provincial members. The ex-President then thanked the Council for their courtesy towards him during his year of office; and also the honorary secretaries of the Metropolitan Branch for the services they had rendered; and the members of the Association present on the occasion of their last meeting for the indulgent reception of his imperfect services. He hoped he might retire from the office with the feeling that the dignity of the office had not suffered in his hands, and that the prosperity of the association had been promoted. In resigning his office, he could not refrain from expressing the gratification which he felt in surrendering the chair to his successor—one so distinguished, so accomplished, and so much respected as his friend Dr. Symonds. [Applause.]

Dr. SYMONDS, the new President, then took the Chair, and delivered an address, which was published at page 133 of last week's JOURNAL.

REPORT OF COUNCIL.

Dr. WILLIAMS, the General Secretary, read the following report.

"It is with great pleasure that your Council meet the members of the British Medical Association in the important city of Bristol, for the purpose of celebrating the Thirty-first Anniversary of the Society.

"The Committee of Council appointed in London have held their quarterly meetings in Birmingham, and desire again to record their thanks to Sir Charles Hastings, who has regularly presided over them.

"Your Council have to announce that the General Secretary, Dr. Williams, has intimated that his increasing professional engagements render it impossible for him to carry out the pressing and arduous duties now attaching to the important office which he has held for the long period of eight years.

"Since the last Annual Meeting, 310 members have been added to the list; 37 have died; 120 have resigned; 56 have been erased. The total number on the books on December 31st, 1862, was 2190; the number now on the list is 2217.

"District Branches. The District Branches still continue to flourish. No new Branch has been formed during the past year, nor has any one previously existing been allowed to decline.

"A letter having been received from the Bengal Medical Association, requesting to be admitted as a Branch of the British Medical Association, your Council cordially recommend that they be recognised as such Branch, provided the laws framed for its regulation be in accordance with the rules of the Association.

"Your Council beg cordially to thank the Honorary Secretaries for their very valuable exertions.

"The JOURNAL. Your Council can refer to the management of the JOURNAL with sincere satisfaction; and

they congratulate the Association, not only on the excellent way in which the editor, Dr. Markham, has conducted that important periodical, but also on the increased amount of materials placed at his disposal by the members generally.

"Finances. The following is the Financial Report for the year 1862, published in the JOURNAL in accordance with Law 23, the accounts having been duly audited by Dr. Melson and Mr. Hadley of Birmingham.

"It is peculiarly gratifying to your Committee, that on the present occasion they are enabled to present a report which in every respect is very encouraging; for not only is there a considerable balance of income over expenditure for the past year, but all the encumbrances which for years have pressed heavily on the resources of the Association are paid off, and we enter upon the present year with every prospect of the income of the society being equal to the expenditure. Instead of the Association being indebted, as was the case some years ago, to your Treasurer to a large amount, he now holds a balance of £221 in favour of the institution. This result has, we are glad to say, been achieved without cramping the energies of the Association by parsimony in the necessary outlay for carrying on its affairs; and it now may fairly be expected that, by paying a due regard to a wise economy, a favourable financial result may be annually expected.

"Below is appended the annual statement of the income and expenditure for the past year, which has been examined by the auditors appointed at the last annual meeting, and found to be correct. It will be seen that the income is larger than that of any former year; and this increase is not confined to the subscriptions being augmented, but also extends to the amount derived from advertisements and sales. By those who have felt any anxiety for the financial position of the Association in former years, this result will be greeted with unfeigned satisfaction.

1862.—DISBURSEMENTS.

	£	s.	d.
JOURNAL EXPENSES:			
Mr. Richards (Printing)	1736	8	10
Mr. Honeyman (Sundries)	79	5	2
Davidson (Commission)	88	5	6
Mr. Orrin Smith and Mr. Westmeath (Engraving) ..	7	0	6
Mr. Richards (Publishing—for three years)	150	0	0
Salaries:—Dr. Markham and Dr. Heury	275	0	0
Contributors to Journal	241	8	6
Interest and Commission	3	14	0

EXECUTIVE EXPENSES:

Secretary and Clerk	117	0	0
Gurney and Son (Report of Meeting)	23	12	4
Secretary's Petty Cash	25	2	6
Sundries:—District Expenses; Post-Office Orders; and Collecting	25	13	0
	2772	10	4

1862.—RECEIPTS.

Balance	107	5	2½
Subscriptions for 1862	1938	11	6
Ditto for previous years	202	5	0
Advertisements and Sales	750	10	6
	2998	12	2½
Disbursements for 1862	2772	10	4
Balance due from Treasurer	221	1	10½

"Such being the statement of accounts for the past year, the Committee will conclude their report, as there now exists no debt to pay off, with a statement of the probable receipt and expenditure for the current year.

PROBABLE RECEIPTS FOR 1863.

Balance due from Treasurer	221	1	10½
Subscriptions for the present year (taking the sum as last)	1938	11	6
For previous years	202	5	0
For Advertisements	750	10	6
	3107	8	10½

PROBABLE EXPENDITURE FOR 1863.

JOURNAL EXPENSES:		
Mr. Richards (Printing)	1750	0 0
Mr. Honeyman (Sundries)	92	18 0
Mr. Davidson (Commission)	98	0 0
Engravings	10	0 0
Richards' Publishing Account	66	16 0
Salaries for Journal	275	0 0
Contributors to Journal	250	0 0
Bankers' Commission	5	0 0
EXECUTIVE EXPENSES:		
Secretary and Clerk	117	0 0
Reporting	23	0 0
Secretary's Petty Cash	25	2 6
Sundries	25	13 0
	2738	9 6
Prize Essay	21	0 0
	2759	9 6

“With the above figures before them, your Committee feel justified in pronouncing the finances of the Association to be in a sound and vigorous condition.

“CHARLES HASTINGS,
“President of the Council, and Treasurer.”

“*Medical Legislation.* This Council recommend that a memorial be addressed to the Council of the College of Surgeons of England, requesting them to take into consideration the propriety of altering their bye-laws, or, if necessary, obtaining the legal powers for enabling non-resident Fellows of the College to vote by proxy at the annual election of members of Council, in accordance with the principle which has already been advantageously adopted in the Universities of Oxford and Cambridge.

“*Medical Officers of the Army and Navy.* Your Council would direct the attention of the Association to the efforts now required of the medical officers of the army and navy to maintain their rank and privileges, and would recommend it to take the requisite steps to secure the integrity of the warrant of 1858.

“*Poor-Law Medical Reform.* A resolution passed by the West Somerset Branch was brought under the notice of the Committee of Council; and the Council invite the attention of the Association at the Annual Meeting to the subject.

“*Gratuitous Medical Services.* Your Council have received the following resolution adopted by the Metropolitan Counties Branch:—“That this Branch recommend to the General Council the desirability of carrying out the steps for the discouragement of Public Gratuitous Medical Services, which have been unanimously approved by this Branch.”

“*Benevolent Fund.* This most valuable Society has steadily maintained its usefulness. A report of its operations will be presented at the Annual Meeting.

“*The Hastings Medal Prize.* Your Council regret that the Hastings Prize Medal, for an essay on Practical Medicine, cannot be awarded this year; the report of the referees being to the effect that no essay of sufficient merit has been sent in in competition.

“*Addresses.* The Address in Medicine will be delivered by Dr. W. Budd.

“The Address in Surgery will be delivered by Augustin Prichard, Esq.

“The Address in Chemistry will be delivered by Dr. Herapath.

“The Address in Midwifery will be delivered by Dr. Swayne.

“*Proposed Changes in the Laws.* The following changes in the Laws of the Association will be proposed by Dr. Markham.

“At each Annual Meeting of the Association, the Secretary shall lay before the first meeting of the Council a List of the Members of the Association, together with a separate List of all Members whose Subscriptions are in

arrears, and the amount of Subscriptions due from each Member.

“This List shall be at once referred to a Committee, consisting of four or more Members of the Council (three of whom shall form a quorum), together with the President and the Secretary. The Committee shall thereupon proceed to settle the List of Members for the ensuing year, retaining or erasing, as they may think fit, the names of any Members who are in arrears: provided always, that no person shall remain a Member of the Association who is more than two years in arrears. The List of Members thus corrected shall be presented to a subsequent Meeting of the Council, and shall, with their approval, be published immediately after the Annual Meeting.

“The Secretary shall in each year, during the first week of June, supply the Editor of the JOURNAL with the names of all those Members of the Association whose Subscriptions have not been paid up to the 31st day of May in each year.”

“Notice of the following alteration has also been given by Dr. Markham.

“In Law 15, for the words ‘twelve months’, to substitute the words ‘five months’.”

Dr. BURROWS (London) moved—

“That the report now read be received and adopted.”

Dr. F. K. FOX (Brislington) seconded the motion.

Mr. STEELE (Liverpool) had no doubt that many members would feel with him happy that the Council had taken up the very important subject of gratuitous medical services—a subject which, he believed, was pregnant with most momentous consequences to the interests of the profession as well as to those of the public; for, however in former times, and even now, under proper restrictions, gratuitous medical services might be desirable and worthy of encouragement, there was no doubt that the system had grown up to be a very great abuse, and had become an incubus upon the profession. He therefore rejoiced to find that the Council had taken the subject up; but he regretted to find that they had taken up a comprehensive and important subject in a very partial, and, in his humble opinion, in a very imperfect manner. It seemed to him that, in attacking the system, they had assailed the evil in its most defensive point. He was not prepared to say that anything could justify the extent to which gratuitous services were given; but, if anything could justify it, it was when they gave those services to the public charities of the country. He deprecated the giving of private medical services gratuitously.

The motion for the adoption of the report, on being put to the vote, was carried.

APPOINTMENT OF AUDITORS.

Sir CHARLES HASTINGS moved, Dr. MARKHAM seconded, and it was unanimously resolved—

“That the best thanks of this meeting be given to Dr. Melson and Mr. Hadley, for auditing the accounts of the Association; and that they be requested to undertake the duties for the current year.”

VOTE OF THANKS TO THE RETIRING PRESIDENT.

Mr. HUSBAND (York) moved—

“That the cordial thanks of this meeting be given to Dr. Burrows, the retiring President; and that he be appointed a Vice-President of the Association.”

Dr. FALCONER (Bath) seconded the resolution, which was carried unanimously.

VOTE OF THANKS TO THE COUNCIL.

Dr. WOLLASTON (Stafford) moved, Mr. RUMSEY (Cheltenham) seconded, and it was unanimously resolved—

“That the thanks of this meeting be given to the Councils of the Association for their valuable services during the past year.”

APPOINTMENT OF SECRETARY.

Mr. SOUTHAM (Manchester) moved—

"That Mr. Watkin Williams, of Birmingham, be appointed Secretary of the Association."

The motion was seconded by Dr. TUNSTALL (Bath); and, after a few remarks in support of it by Mr. BARTLEET and Dr. STEWART, was carried.

VOTE OF THANKS TO THE LATE SECRETARY.

On the motion of Mr. NUNNELEY (Leeds), it was resolved—

"That the cordial thanks of this meeting be given to Dr. Williams for the very courteous manner in which he has uniformly acted as General Secretary of the Association."

MEDICAL PROVIDENT ASSOCIATION.

Dr. RICHARDSON (London) moved—

"That a Committee be formed to consider and report on the question, whether it is possible to establish, under the direction of the Association, a Relief Fund, which shall enable the widows of members, or the orphans of members, or members themselves during sickness, to receive pecuniary aid by annuity or otherwise, on the principle of mutual protection and right."

"That the Committee report to the next annual meeting of the Association."

"That the Committee consist of Sir Charles Hastings, M.D.; Edward Daniell, Esq. (Newport Pagnell); Henry Day, M.D. (Stafford); George Pound, Esq. (Odiham); J. M. Bryan, M.D. (Northampton); A. P. Stewart, M.D. (London); R. B. Carter, Esq. (Stroud); E. Bartleet, Esq. (Camden); and Henry Gramshaw, Esq. (Framlingham)."

His object, he said, was to secure a fund enabling medical men during sickness to claim a certain annuity, and also another fund by which their widows and children should receive assistance. If they took five years as a starting-point, and the members of the Association began now to subscribe each one guinea a year, it would in the time yield such an income that, if they assumed 3 per cent. as the proportion of their number likely to be invalided, those invalided could receive after the rate of £100 per annum for the first three months, £50 per annum for the next three months, and £20 per annum permanently; while if the subscription were doubled, making it two guineas annually, they could allow widows £25 a year, without any risk or great expense. He had found that the fund could be worked cheaply by one of the existing life-offices in London; and he commented on the independence which such a fund would give to every member of the Association, relieving them of a great deal of the extra toil which wears down the lives of the profession.

Mr. DANIELL (Newport Pagnell) seconded the motion with peculiar gratification. The best part of his life had been occupied in the endeavour to establish such a fund, as he considered that the members of the profession ought to be placed above the risk of falling into a condition of charity.

After some remarks by Mr. STEELE and other members, the resolutions were unanimously adopted; Dr. Richardson's name being added to the Committee.

CONVERSATION AT THE PHILOSOPHICAL INSTITUTION.

At nine p.m., a very agreeable gathering took place at the Philosophical Institution, when the whole of the rooms were thrown open to a large company of gentlemen, for the most part members of the Association, likewise a fair sprinkling of others. The entertainment provided was of a scientific character. In the theatre, the use of the induction coil was shown by means of a series of experiments of an attractive character; and which were performed by Mr. Phillips of Weston-super-Mare, with much ability and success. The use of the induction coil in increasing the intensity of the voltaic

current and converting dynamical into statical electricity was exemplified. Flashes of sparks of two or three inches in length, and a continuous series of sparks, were vividly produced. Next, the effect of putting a Leyden jar in the circuit of the electricity was shown, the length of the sparks being diminished, but its brilliancy increased in a tenfold ratio. So much, indeed, was the brilliancy augmented that the whole theatre appeared to be fully lit up by the sparks. The enormous rate at which electricity travels was demonstrated by means of a coloured disc, which, during the time that the experiment was being performed, appeared to stand quite still, although at the same time it really rotated at such a tremendous speed, that it was quite impossible to distinguish the various colours upon the disc. Two or three experiments were tried in order to show the persistence of vision; but these were outdone by Gasiot's cascade, which proved a great attraction. Under an exhausted receiver was placed a glass cup filled and flowing over with beautifully coloured fire, which incessantly fell in radiant streams, produced by the electricity spreading itself through the vacuum. Perhaps, the experiment of the evening was that in which the effect of magnetism upon the current of electricity was shown. In an exhausted receiver a spark of about six inches in length was produced by the induction-coil around an electro-magnet. Immediately the electro-magnet was connected with the battery, the spark which before remained stationary, commenced to revolve, and its direction was changed by altering the poles of the battery. An experiment with a fluorescent uranium glass tube was extremely beautiful. Through a long tube of glass a current from the coil was passed, and then the glass, which before appeared perfectly colourless, immediately glowed with a greenish yellow light. In addition to this experiment, there were several curious vacuum tubes experimented upon, many of them being phosphorescent. Mr. Phillips's second series of experiments in the theatre consisted of an exhibition of the electric light, with appropriate exemplifications. The electric lamp of Duboscq was used, in order to demonstrate effectually optical phenomena. The room having been illuminated with the electric lamp, which burned as steadily as an ordinary gas jet, the lamp was placed into a lantern and in the focus of a series of lenses, when the actual arc of light was projected upon a screen, and the audience were enabled to look without fatigue into the very centre of the brilliant arc of light and see what was going on when the transference of the particles from pole to pole took place. Refraction through gases and several displays of spectrum were likewise produced. By means of a lantern, a small silver globe, which had been suspended in a rather large chest, and at one end of which were perforated two holes, was illuminated by a ray of the oxyhydrogen lime light through one of the holes. A telescope was placed at a distance of fifteen feet from the chest, the tube being pointed towards the other perforation, and the spectator, on looking through the telescope, was enabled to perceive the ray of light struck off, as it were, from the other side of the globe. The apertures in the film of collodion through which the eye gazed were so beautifully contrived that the ray of light was dissected into its primary colours, which were beheld in the shape of concentric circles and other devices, some of a really magnificent character. The large room, in which the collection of specimens appertaining to the museums are collected, was lit with the lime-light, and very brilliant was its aspect. Some of the experiments with the light were of an extremely beautiful character; whilst in a few, the effect seemed really magical, so startling were the appearances. The interference and diffraction of light were displayed, indeed, to an advantage which—in the provinces, at least—has never been surpassed. An artificial halo was one very pretty experiment, lycopodium being sprinkled upon the glass, and

thus, by means of the application of the light, producing exquisite concentric halos. At one part of the evening, Mr. W. Sanders, who is well known as an ardent local geologist, gave a short account of the geological peculiarities of the district about Bristol, in the Museum, and a goodly concourse flocked thither to listen to his remarks, which were illustrated by diagrams. Perhaps, one of the most noticeable features of the whole *soirée* was the exhibition, in the Octagon, of the municipal plate of the city, which had been kindly lent for the occasion upon application to the Right Worshipful the Mayor. A large collection of microscopes was arranged in the committee-room under the superintendence of Dr. Martyn; and a number of microscopic preparations lent for the occasion by Dr. Lionel Beale attracted much attention. We should not omit to call attention to the polariscope, microscope, etc., of Dr. Herapath, in the committee-room. At eleven o'clock, the visitors partook of a sumptuous supper; and, at a little after twelve, this agreeable *réunion* was brought to an end.

THURSDAY.

COMMITTEE OF COUNCIL.

The General Council this morning elected the following ten members of their body as members of the Committee of Council for the next year: E. Bartleet, Esq. (Camden); P. Cartwright, Esq. (Oswestry); M. H. Clayton, Esq. (Birmingham); R. W. Falconer, M.D. (Bath); W. D. Husband, Esq. (York); B. W. Richardson, M.D. (London); G. Southam, Esq. (Manchester); A. T. H. Waters, M.D. (Liverpool); E. Westall, M.D. (Caterham); and M. A. E. Wilkinson, M.D. (Manchester).

PLACE OF MEETING FOR 1864: PRESIDENT-ELECT.

THE PRESIDENT. The Council have come to a resolution to recommend that the next annual meeting shall be held at Cambridge. When the proposition is placed before you, as it will now be by Dr. Humphry, you will rejoice that such an opportunity is before the Association. Our history as a society will be incomplete till we have had our annual meetings in both the great Universities of our country. Two have already been held at Oxford; but we have not yet been to Cambridge. It is hoped, however, to do that next year.

DR. HUMPHRY. For many years there has been a wish that one of the annual meetings of the Association should be held in Cambridge. Hitherto, various circumstances have conspired to prevent the realisation of that wish. We hope, however, that now the opportunity has arrived; and I have come, in consequence of a meeting of the residents in Cambridge, to invite the members of the Association to hold the next annual meeting in Cambridge, and I trust that it will be agreeable to you to do so. If for no other reason, it is desirable that a meeting should be held in Cambridge, in order that the members of the profession may have an opportunity of assuring themselves of the interest that is taken by the University in medicine and the collateral sciences, and of the anxiety that is felt to conduct the teaching of those sciences in an efficient manner, and to render them a proper avenue to the high honours and the rich prizes which it is in the power of the University to bestow. At the same time, I must remind you, that at the time of the year when these meetings usually take place, the University is comparatively empty, the undergraduates, the fellows and heads of colleges are for the most part absent. It will, therefore, not be possible for the University to do that honour which it would wish to so influential and important a body as the British Medical Association, or for the colleges to extend to you that hospitality—almost as renowned as their learning—which they are wont to show on occasions of this sort. Still, though the spirit of the place will thus, in great measure, be absent, the place itself will be there with its numerous attractions,

with its time-honoured walls entwined with the affections of so many generations, and hung about with so great a load of associations, associations of the past and of the present, associations connected so intimately with our educational history, and with so much that has contributed to improve the mind and shape the character of the people of England. I have no fear that these attractions combined with the efforts to welcome and entertain you, which will be made by the residents in the place, will ensure a full, an agreeable, and instructive meeting.

On such an occasion, we should naturally look to the Regius Professor of Physic to preside over us; and a few years ago when it was proposed that the Association should come to Cambridge, Dr. Bond assented to take the chair. I regret to say, that at the present time, recent and severe domestic afflictions compel him to decline. His good wishes will attend us; but he does not feel that he could undertake the office with that spirit and energy which are necessary to ensure the success of a scientific and social gathering. Much as we lament his decision, we have the satisfaction of feeling that we have in Dr. Paget one who, by character and ability, by University position, and by professional reputation, is highly qualified to fill the gap and to discharge the responsible and honourable duties of President of the Association. I will occupy no more of the time you are eager to devote to the Address in Medicine, and at once move—

“That Cambridge be the place of meeting of the Association in the year 1864; and that Dr. Paget be appointed President-elect.”

SIR CHARLES HASTINGS. I hail with joy—and I am sure you all hail with joy—the prospect of meeting at Cambridge. Our hearts' desire has been for years that we might meet in that time-honoured and celebrated University. I therefore most cordially second the proposition, both as to the place of meeting, and as to the individual who shall be President. The name of Dr. Paget is a passport to the success of the meeting next year; and I trust that nothing will occur to mar the happiness which we anticipate in connection with the meeting, and the efforts which shall be made to spread the knowledge of medicine, and to promote social harmony amongst all the members of the profession [*Cheers*].

The proposition was unanimously assented to.

DR. PAGET (Cambridge). As I was not present at the meeting of the Council when this matter was discussed, I rise merely to express my thanks for the distinguished honour which the Association has been so good to confer on me, and to express also the great pleasure I shall have in doing what in me lies to make the occasion agreeable to the members. Dr. Humphry has well expressed, in the only part of his remarks which I shall advert to, what are the little drawbacks to the meeting; namely, that the members of the University will for the most part be absent. Cambridge is a small place, and the number of the medical men is also small in proportion to the wealth and the population of the place. Unfortunately, during the long vacation, few members of the University are resident in Cambridge; but of course there are many objects of interest there to persons of education and cultivated minds, so that one may hope that the meeting will be made agreeable; and I can assure you that the Association shall have a hearty welcome [*Cheers*].

ARMY AND NAVY MEDICAL OFFICERS.

MR. HUSBAND (York) proposed to the meeting the adoption of memorials to the Secretary of State for War and the First Lord of the Admiralty, relative to the grievances under which the army and navy suffer, through the warrants establishing their rank with their combatant brethren being virtually set at naught by the com-

manding officers. The memorials, which were unanimously adopted, were as follows:—

*"To the Right Hon. Earl De Grey and Ripon,
Secretary of State for War.*

"We, the President and members of the British Medical Association, numbering more than two thousand of the principal medical practitioners of the metropolis and the provinces, feeling deeply the grievances of which our medical brethren of the army have to complain, approach your lordship to request that you will take the necessary steps to remove the grounds of such complaint, especially by securing to the army medical officer the precedence and advantages conferred upon him by the warrant of 1858. We feel that your lordship and your predecessors have been anxious to place the army medical officer in a position becoming the gentleman and the educated medical practitioner. Wearing the same uniform, sharing the same dangers, entitled by the different army warrants to relative rank according to the length of service, it is yet notorious that the tendency on the part of commanding officers in the army is to destroy the effect of the warrants, and to deprive the medical officer of the advantages and privileges due to him.

"We therefore earnestly entreat your lordship to inquire into the grievances of our army medical brethren, which are now preventing many of our profession from devoting themselves to the army medical service; and to take the necessary steps for enforcing the carrying out of the warrants issued for securing to the army medical officer his proper and legitimate position, and for extending the principle introduced by such warrants, so as to place him on a full equality with his combatant brethren."

"To His Grace the Duke of Somerset, First Lord of the Admiralty, etc.

"We, the President and members of the British Medical Association, numbering more than two thousand of the principal medical practitioners of the metropolis and the provinces, feeling deeply the grievances of which our naval medical brethren have to complain, earnestly request your Grace to cause an inquiry to be made into the causes of such complaint, and to secure to the medical officer a position becoming a gentleman and a member of a liberal profession. Sharing the same dangers, and wearing the same uniform, the naval medical officer, especially the assistant-surgeon, is yet virtually denied the position due to his relative rank in the service; and hence many most highly educated and intelligent members of the profession shrink from a service to which they would otherwise devote themselves with energy and success."

THE ADDRESS IN MEDICINE

Was read by WILLIAM BUDD, M.D. It was printed in full at p. 141 of last week's JOURNAL.

Dr. RADCLIFFE HALL. About twenty-five years ago a prize was offered by this Association on the subject of Fever. The late Sir John Forbes was one of the adjudicators; and he remarked that it was a most able paper, but that the doctrines it contained were too startling to be safely followed. Therefore, the prize must be "content to dwell in decent platitudes for ever." Time, however, brings about its revenge. It is always competent for one to appeal from the evidence of the few to the estimation of the many. Such an appeal has been made to you this morning; for the same acuteness of perception, the same logical tone, the same clearness of thought, and the same consequent clearness of expression, which rendered that gloriously unsuccessful essay gloriously unsuccessful—because it is glorious to fail in being wise before one's generation—has been displayed in the magnificent address to which you have listened with such breathless attention. But to this appeal, thus

a second time made to you after twenty-five years, will your *imprimatur* be the same? Will you withhold the high award of your esteem and just estimation of such an emanation of intellect as that to which you have just listened? It would be nothing short of an impertinence in me, who never mix in the society of my friend Dr. Budd without expecting to learn something from him—and that is always forthcoming—to say one word of commendation, however it might be appropriate from others older than myself. I will therefore content myself by proposing—

"That the warmest and the cordial thanks of the meeting be given to Dr. W. Budd, for his very able and interesting address."

Dr. RICHARDSON. I have to second the proposition of Dr. Radcliffe Hall; and I do it with the supremest pleasure; and I would only make two remarks in reference to the address. The first is this: that while Dr. Budd has placed before us a figure so masterly, and explained it so simply, we should not forget that but for the artist who has drawn the picture we should not have seen it. Secondly, I would point out this fact as bearing on the vote of thanks; that it is through such efforts as those that Dr. Budd has referred to, that the connection between public sentiment and professional medical service and science can be achieved. Your address of yesterday, Mr. President, would in a few years be found to be a paradox, if these labours which Dr. Budd has taken up were continued, and if they were taken up by the profession as one man.

The resolution was carried by acclamation.

PAPERS.

The following papers were read:

On the Efficacy of a long Course of Nitric Acid in reducing the Enlargement of the Liver and Spleen which sometimes results from the Syphilitic Cachexia. By George Budd, M.D.

On the Abstraction of Blood as a Remedy. By B. W. Richardson, M.D.

On Vivisection. By W. O. Markham, M.D.

THE ADDRESS IN SURGERY

Was delivered by AUGUSTIN PRICHARD, Esq. It was published at p. 151 of last week's JOURNAL.

Mr. TURNER (Manchester) moved—

"That the cordial thanks of the meeting be given to Mr. Prichard for his very able and interesting address."

Mr. SPENCER WELLS seconded the resolution, which was carried unanimously.

PAPERS.

After Mr. Prichard's Address, papers were read:

On Excision of the Knee-joint. By W. M. Clarke, Esq.

On Vaccination, and the best means of extending it. By T. S. Fletcher, Esq.

On the Operation of Transfusion in Obstetric Practice. By Graily Hewitt, M.D.

On Illustrations of the Causes of Hoarseness and Loss of Voice. By G. D. Gibb, M.D.

Hoarseness and Loss of Voice treated by the Application of Galvanism to the Vocal Cords. By M. Mackenzie, M.D.

CONVERSAZIONE AT THE PRESIDENT'S HOUSE.

In the evening, Dr. Symonds entertained a large company of gentlemen, consisting mainly of the members of the Association, at his residence, Clifton Hill House. In addition to the usual features of a *conversazione*, there was a performance by the Artillery band upon the lawn, while in the drawing-room a party of glee-singers were stationed. Upon the flight of steps leading to the lawn, Mr. J. Phillips, of Weston-super-Mare, exhibited the lime-light, to the gratification of numbers who surrounded him; and as the intense rays fell upon the musicians below, and occasionally lit up the foliage of the

trees which bordered the entrance, the effect was truly striking. At eleven o'clock a sumptuous repast was served up, and soon afterwards the company separated.

FRIDAY.

ADDRESSES AT THE NEXT ANNUAL MEETING.

It was resolved—

"That the appointment of the readers of addresses at the next annual meeting be referred to the Committee of Council, after consulting the members of the profession residing in Cambridge."

THE MEDICAL BENEVOLENT FUND.

Dr. MARSHALL (Bristol) read the General and the Financial Report of the Medical Benevolent Fund.

Mr. BARTLEET moved—

"That the Report be received and adopted."

Sir CHARLES HASTINGS seconded the resolution with great pleasure, because it so happened that thirty years ago the society was set on foot in Clifton, and had for many years to encounter indifference of support; but he was glad to hear from the Report of the large increase which had taken place.

The resolution was carried unanimously.

REPORT OF THE THERAPEUTICAL COMMITTEE.

Dr. MARKHAM read the following Report from the Committee appointed by the Association for furthering Therapeutical Inquiries.

"Edinburgh, August 1st, 1863.

"As Chairman of the above named Committee, I have to report that, in accordance with the arrangement made last year in London, schedules for obtaining reports of the therapeutical action of remedies in various diseases have been published and circulated in the JOURNAL. For example—

1. The Effects of Antimony, Moderate Bleeding, Supporting Diet, or Stimulants, in Pneumonia. Reporter, Dr. Bennett of Edinburgh.

"2. On the Effect of the Oil of the Male Shield Fern, or of Kousoo, in Tania. Reporter, Dr. Fleming of Birmingham.

"3. That of Arsenic, moist weak Alkaline Applications, or Pitch Ointment, in Psoriasis. Reporter, Dr. Handfield Jones of London.

"4. That of Mercurials, Benzoic Acid, and Podophyllin, in Jaundice. Reporter, Dr. Harley of London.

"5. That of Chlorine Mixture, Carbonate of Ammonia, Quinine, and the Wet Sheet, in Scarletina. Reporter, C. F. Hodson, Esq., of Bishop's Stortford.

"The proposed schedules for Atropia in Epilepsy, and for the Progress of Disease, by Mr. Crompton of Manchester, and by Dr. Farr of London, have not yet been published.

"Of the five schedules published and circulated, the return for that on Psoriasis was left open until the 1st of January, 1865. Of the other four, returns were requested on the 1st of July, 1863, in the hope that their analysis would furnish valuable communications for the present meeting in Bristol. I regret to say, however, that the returns are not sufficiently numerous in any one of them to render a special report of value. This will appear from the following statement.

"Dr. Bennett has received fifteen schedules, containing fifty-five cases, twenty of which were furnished by one member. Dr. Fleming has received eighteen schedules. Dr. Harley has received seven schedules. Mr. Hodson has received six schedules.

"Under these circumstances, I have to propose that the time allowed for all these reports be prolonged until the 1st of May, 1864; and that the members of the Association generally, and hospital physicians in particular, be requested through the JOURNAL, as well as by private solicitations, to take more interest in these in-

quiries, and to return as many cases as possible to the various reporters on the day specified.

"J. HUGHES BENNETT, M.D., *Chairman.*"

Dr. FLEMING (Birmingham). I do not quite agree with Dr. Bennett in relation to returns already made. With respect to my own question, I think the returns are sufficient to make a satisfactory report on the subject of inquiry. With a view to continuing the labours of the Committee, I think it will be better to leave it open to the Committee to continue the old questions and suggest new ones. He moved—

"That the Committee (for furthering therapeutical inquiries) be reappointed; and that it be authorised to take such steps as may appear to it best calculated to promote the objects for which it was formed."

Dr. STEWART seconded the motion. He thought that at the last year the subject was gone into too hastily, and probably from that circumstance arose the fact that so little result had followed. He would make this one suggestion: that it would be important for the Committee to communicate with the Branches in large towns where there are hospitals, these institutions being the only places where such inquiries could be made.

THE ADDRESS IN CHEMISTRY

Was then read by Dr. HERAPATH.

Dr. STEWART (London) proposed—

"That the cordial thanks of the meeting be given to Dr. Herapath for his very able and interesting address."

He said: This gigantic science, which during the prospect of the present century has grown from infancy to manhood, and with which are bound up many brilliant prospects for the future, is a most proper and interesting subject to bring before this Association; one which, by its improved, and every year improving, modes of investigation, is laying open so many of the arcana of the mineral and the animal world, and is beginning to throw such brilliant light on some of the darkest processes of the human economy—that little world which it is our special purpose to study, with a view to the alleviation of human suffering. This glorious science has been set before us this day in a manner which all who know Dr. Herapath were perfectly convinced would give great pleasure and delight to this Association. He has shown all his well-known ability and wit in bringing this important subject before us. We shall go away with many suggestive thoughts which, in turning over in our own minds, we may be able to turn to good account in the furtherance of medical science. But, sir, while I am sorry I should have a single word that is not of eulogy upon this very able and interesting address, I think that, while we should bow to Dr. Herapath, with his well-known and extensive knowledge in his own department, we must claim liberty to judge for ourselves on matters of the very highest moment, which have been alluded to, I shall venture to say, in a manner which some here, perhaps all, think scarcely befitting the sacredness of the subject. I think it would have been well if certain allusions to subjects on which, it is well known, men differ largely in these days, had been left to that process of time which I, for one, am perfectly sure will only show that that glorious Revelation on which all our hopes of the future are based is in itself entirely, strictly, and verbally true; and if he had treated us only to the facts of chemistry, instead of speculations in chemical theology. With this single drawback, I have the greatest possible pleasure in moving this vote of thanks to Dr. Herapath.

Dr. EVANSON (Torquay). I feel equally great satisfaction in rising to second the vote of thanks just proposed to Dr. Herapath. There is no individual in this room, but must have highly valued and largely profited by hearing his learned, eloquent, and able discourse—a discourse on a subject both instructive to us medical men, and coming most directly into contact with the

parties by whom we make our livelihood and hold our position in society. It is by the administration of medicine in the time of disease, and by alleviating disease in the administration of medicine, that we fulfil our duties, and hold the position to which the public look; for to what class of men have the public so much reason, or right, or necessity, to look as to the medical man, in whose hands their happiness is so directly placed? For in the hands of the medical man is placed their health; and without health there is no happiness. The more need, then, is there that the medical man and the public understand each other; have mutual confidence in each other; be drawn together by a right and a true tie. And it is not satisfactory to think that those ties are not so secure as they ought to be. The public faith has been shaken in medicine; and we ought to ask ourselves, Have we not given reasons for it? Till we are agreed among ourselves, we cannot expect the public to place confidence in us; and the way to do that is, to investigate medical truths for the purpose of finding out their existence in fact, and not for the purpose of supporting any particular theory, or carrying out any peculiar views. I do not think there is a just foundation for the apparent differences of opinion which exist among medical men. If the treatment of disease is looked at in a broad point of view, there are many reasons why men should agree where at present they appear to differ. It is not the mere administration of medicine for the cure of a complaint that the medical man should be occupied with, but the treatment of disease in the consequent influence of one medicine on another. And, accordingly, instead of disputing whether we should bleed or not, or whether that course has been rightly adopted or not, we should rather try and ascertain, as accurately as we can, the conditions, the times, and the occasions when such a remedy should be used. It is not in itself a cure, but a preparation for what is to come after. I could not help being struck by those papers which gave us information on the subject of bloodletting—how much it appeared to be the feeling of medical men that it was a useful remedy, by the applause which was accorded to them; and at the same time by the fact that it is very little employed. The great object should be, as much as possible, to unite together, each man conceding as much as he could in favour of another, that we may come before the public as a united body. When I see such a body of men as I do before me, I cannot think that any amount of absurdity, prejudice, or injustice, whether from fanciful ladies, from Saturday "revilists", or mistaken editors of the press, can for a moment succeed in putting down the truths of science or the power of medical men; for I believe we have come to the modest conclusion that there is science in medicine and truth in medical men. [Cheers.]

The motion was carried unanimously.

LEGAL PROSECUTIONS OF MEDICAL MEN.

Dr. RADCLIFFE HALL remarked that, during the past year, three members of this Association had been subjected to legal prosecutions under circumstances which rendered them legal persecutions. That medical men were peculiarly open to unjust aspersions on the part of the base and the designing, required no showing; and when any of them unfortunately became victims of unjust accusation, the least we could do, as fellow-members of this great Association, was to offer to them the meed of our sympathy and the solace of our moral support. At the same time, he could not refrain from expressing his opinion that, when members of the profession were called upon as witnesses against a brother practitioner, they should remember that a court of justice was not a fitting arena on which they might give their hobbies an airing, or distinguish themselves by propounding singular opinions in which they differed

from the profession at large; and that a medical witness in such a case was bound to consider the effect upon the person arraigned of what he was about to say, and then to do as he would be done by. He concluded by moving—

"That this Association has observed with extreme pain the legal persecutions to which Dr. Waters of Chester, Mr. Adams of London, and Dr. Philbrick of Leamington—all members of this Association—have been so unjustly subjected during the past year; that this meeting offers to each of these gentlemen its profoundest sympathy, and tenders to each of them the expression of its entire conviction that their moral and professional character and position stand unimpeached.

"This meeting also takes the opportunity of deprecating the conduct of any members of the medical profession who render assistance in the legal persecution of their brethren on mere suspicion, or on grounds which have not even the semblance of being substantial."

Dr. RICHARDSON. I heartily second Dr. R. Hall's motion. It comes in a most appropriate manner, and I trust that the effect will be lasting on the members of the Association. I am not acquainted with Dr. Waters of Chester; but it has been my fortune during the past few months to stand by one of the gentlemen referred to—Mr. Adams; and, speaking of him as a man, I can say that he is of a most genial disposition. If the members of this Association had stood by him, as I have, and witnessed how he has been drawn from his ordinary avocations, and subjected to all kinds of insult on no pretence whatever; if they could have seen the mental suffering he has been called upon to undergo,—they all would understand me when I say that, if such a position were before me now, and I were asked, "Will you accept all this calumny, suffering, and abuse; or will you die?" I would rather say, "Take at once my life, and drag me from my wife and children, rather than subject me to such mental agony." I do think that, with regard to all these gentlemen—for I can say the same of Dr. Philbrick—if there is anything which they can leave to their children as a protestation of their innocence, if there is one thing which can bring them into the world again, it is the resolution on the part of this Association that we give them our entire sympathy and our entire confidence. [Cheers.]

Mr. NUNNELLY (Leeds). As a member of this Association residing in a distant part of the kingdom, I think it right to say that I think that throughout the whole of the land we are unanimous on the subject of this resolution. I hold in my hand a letter which I have received, asking that such a resolution should be brought forward; and I should have done so, if Dr. Radcliffe Hall had not. I am sure that the expression of sympathy contained in the resolution will not only tell as a solace to those gentlemen who have been so grossly subjected to legal proceedings, but that it will have a great tendency towards preventing any of ourselves being placed in the same difficult and unfortunate position; for it is utterly impossible for any member of the profession to avoid being at times placed in circumstances which might lead to such unpleasant proceedings as these gentlemen have been subjected to. An expression of sympathy with these gentlemen is a combination for self-defence.

The PRESIDENT. I rejoice that this resolution has been brought forward; and that it has been so ably moved, seconded, and supported. I need only read it to you, and you will pass it by acclamation. [Cheers.]

The resolution was passed by acclamation.

Dr. WATERS (Chester). By the merest accident I have come into this room at the very moment when Dr. Radcliffe Hall rose to propose the resolution. I was entirely unprepared for anything of the kind. I am the only one of the three gentlemen embraced in it who is present; and I feel, however I may be occupying the time

of the meeting with a personal matter, that, having been distinctly named and referred to, it is my duty, as it is my pleasure, to return thanks to the proposer and seconder of the resolution, and to the Association generally, for the enthusiastic as well as unanimous manner in which it has been passed. I am personally unknown to the great majority of those now present, and I may as well name myself as Dr. Waters of Chester; and I believe that, in the annals of medical jurisprudence, no man has had to submit to so baseless and infamous a charge as has been my lot to contend against. The matters are well known in the city in which I reside. Fortunately, my position was such, that neither before the trial, nor since, can I say I have been in the slightest degree affected by the proceedings, otherwise than that I have gained sympathy from many residents with whom I was previously unacquainted. That the charge against me was false, and had not the slightest ground on which to rest, was known before the trial; and I am stating here what I stated to one of the Canons of Chester, a dignitary most esteemed and most valued in the Church. When he suggested to me that I should not go to trial—when he asked me whether, if the actions were dropped, I would forego my action—I replied that I would not; that they had brought the charge against me, and attempt to prove that charge they should; for that I would bring it before the public, if they did not. I will honestly confess that, when I gave him that answer, I told him that the parties who were persecuting me knew the charge to be false; and when I gave him that answer, I had the hope—knowing the evidence which had been obtained with regard to the character of the woman—that there would be a more complete exposition of all the circumstances of the case than has transpired. Owing, however, to the way in which legal evidence is trammelled, the true history of the case has not yet been brought before the public. That woman who was the basis of the charge is notorious throughout Chester for her improper conduct, not recently, but for years; and it is further known that she had not herself the means of carrying the matter into court, and that she has not paid the expenses of the trial. There was a combination of persons who quietly hatched and matured that charge against me in secret, which I determined to resist openly. The facts are not so thoroughly well known in other places as they are at Chester and Liverpool. It is well known that I was happily able to prove a negative as regarded the facts which were imputed to me at a time long precedent. I again thank you, Mr. President and brethren, for your kindness in passing this resolution. I believe the trials will do this good; that we shall not in a hurry have anything of the kind again, and that we shall not have one medical man coming forward as evidence against another on a mere shadow of suspicion. We have it on Dr. Ramsbotham's own statement, that he tried to persuade the parties from going on with the charge against me, because they would fail; and that the reply was, not that the charge was true, but that they had gone too far, and were obliged to go on. That occurred two or three months before the trial, and that alone ought to have been one strong reason why Dr. Ramsbotham ought not to have lent his name to it. [Cheers.]

A PAPER

On the Use of Belladonna in Intestinal Obstruction, was read by A. P. Stewart, M.D.

Dr. FLEMING. I hope, sir, that Dr. Stewart's paper will lead the members to direct their attention to the leading virtues of belladonna. There are many distinct points in its action upon intestinal obstruction which arise—the question of its mode of action and cure. Into those I shall not enter, but will make one observation in relation to the mode of administration—a matter of great importance, should any member think of trying

the preparation as recommended by myself, and referred to by Dr. Stewart. There is no question that, in using atropy, we have a remedy of perfect certainty, because we know its strength, and we can dose it with the greatest certainty, and secure great efficiency in its action. But as to the time of the administration, if the atropy, or any preparation containing belladonna, is given in connexion with food, on a full stomach, it has little or no action; whereas if given on an empty stomach, it will quickly begin to operate. I have known doses given on a full stomach productive of no effect, and the same dose given on an empty stomach induce symptoms which carry the operation of the drug into the range of poisonous action.

THE CALABAR BEAN.

An able communication on this subject was made by Thomas Nunneley, Esq., of Leeds. A paper on the same subject, accompanied by drawings and preparations, had also been received from Dr. Harley of London; but was not read, in consequence of the absence of the author and of want of time. Dr. Henry stated that Dr. Harley had placed at his disposal some of the Calabar bean papers prepared by Messrs. Bell, for distribution among those members who might desire to have them.

A PAPER

Containing Practical Hints on the Treatment of Patients suffering from Nervous Pain and Neuralgia, was read by C. B. Radcliffe, M.D., London.

THE ADDRESS IN MIDWIFERY

Was read by J. G. Swayne, M.D.

Mr. PROBERT (London) moved—

“That the cordial thanks of this meeting be given to Dr. Swayne for his very able and interesting address.”

He spoke of the importance of the paper, and the admirable and eloquent manner in which the writer had brought it forth. He had never admired a paper more in his life, and he thought the Association much indebted to Dr. Swayne.

Dr. ROUTH. I have great pleasure in seconding the vote of thanks. It is by such addresses as these that the character of this Association will be raised, not only in this country, but throughout Europe. We learn thereby what great minds there are amongst ourselves, who can put forth truth so clearly, so pleasantly, and so convincingly. There was one point particularly which struck me; it is this, that Dr. Swayne has stood up in a very manly way—in a way in which persons at public meetings are not always inclined to do—in favour of British practice. The great thing which gives power to those men abroad—in France, and Germany, and elsewhere—is, that they are so fond of praising themselves, and ignoring everything that is British. Now, if there is one point more clear than another, it is that our profession has made advances in no part of the world more than in these realms; and that midwifery stands preeminent amongst those who practise it, both here and abroad. We have, therefore, the gratification of knowing, not only that we have learned a great deal; but we have the conviction in our minds that we have learned from those who are not only able to teach us, but who are able to teach those abroad, who are sometimes inclined to look down superciliously upon us. [Cheers.]

The motion was unanimously affirmed.

PAPERS.

The following papers were then read.

The Climate of Clifton. By G. F. Burder, M.D.

The Dermal Pathology of Celsus. By E. Wilson, Esq., F.R.S.

On account of the absence of the authors, and the complete occupation of the time of the meeting, the following papers, most of which had been forwarded, were unavoidably omitted; they will, however, be published in the JOURNAL.

Statistics of the Treatment of Rheumatic Fever. By T. K. Chambers, M.D.

The Social Aspects of Syphilis. By R. W. Coe, Esq.

The Calabar Bean. By G. Harley, M.D.

On the Deficiency of Vital Power in Disease, and on Support. By L. S. Beale, M.D., F.R.S.

The Treatment of Pneumonia. By S. J. Goodfellow, M.D.

Three Cases of Artificial Urethra. By I. B. Brown, Esq.

Chloroform taken internally in the Fluid Form. By C. Kidd, M.D.

VOTE OF THANKS TO THE PRESIDENT.

Sir CHARLES HASTINGS. You will excuse me, sir, if I do not address you on this occasion. My dear friends and fellow-members, I am sure you will anticipate what I am about to say to you, when I rise to address you at the close of this auspicious session, which, among the many that have occurred during the existence of the Association, will, I am sure, stand unrivalled. Will you allow me for a moment to call your attention to the fact, that, for the eminent success of this meeting, we are indebted to the indefatigable, the zealous, and the able cooperation and exertions of our most esteemed and worthy President? [*Cheers.*] We shall none of us leave this city, and the magnificent scenery of the country round, without acknowledging that nothing can exceed our admiration of the manner in which our President has occupied the chair. [*Cheers.*] His presence will evidently prevent my enlarging in any way on his merits; but what I have said he eminently deserves, and I am sure you will feel that we ought not to separate without expressing the deepest gratitude for his labours and the highest estimation of his talents. [*Cheers.*] I, therefore, move—

“That the cordial thanks of the meeting be given to the President, Dr. Symonds, for the very able manner in which he has conducted the meetings of the Association.”

Mr. TURNER. I never rose with more pleasure than I do at the present moment; and I am quite sure that neither eloquence nor language, except that of the heart, is necessary in order to confirm the view which you, Sir Charles Hastings, have taken, and the language in which you have expressed your esteem, of our excellent President. I look upon it that, however instructive the different papers have been as delivered in this room, there is no feeling which can pervade our minds more strongly and more to the point than the social matters connected with our Association. [*Cheers.*] It is all very well to speak of what we have heard; but I am sure that the state of our feelings has depended very much upon the hospitality of our President. I do most sincerely second the vote of thanks to him for the kind manner in which he has discharged his duties at this meeting. Not to detain you longer, I will only add, that I sincerely thank him for his exertions, assured that what I have said, and the resolution now proposed, will be responded to with heart and voice.

The resolution was carried by acclamation.

The PRESIDENT. I have felt it to be a matter of great pride that I should have been thought worthy to occupy such a position as that of the President of the British Medical Association. It has been a feeling of pride during the whole of the year I have been President-elect; it has been accompanied also with a counterbalancing feeling of exceeding distrust of my capability of fulfilling the duties of my office as I should desire, and as the character of the Association would require of its President. I feel that I have come very far short [*No, no*] of what I wished to have done as President; but the feeling of satisfaction is very strong in my breast, produced by such commendations as I have received from men so eminent, and whose opinion is so well worth having as that of Sir Charles Hastings and

Mr. Turner. As to the success of the meeting, I cannot take to myself much of the credit of it. I have endeavoured to do my duty; but I should have been quite unable to bring about the results which I think have been brought, had it not been for the assistance I have derived from the Local Council, and especially from the able and indefatigable exertions of my friend Dr. Marshall. [*Cheers.*] The help he has given me I cannot speak of in terms too strong. I have so often, in the course of this meeting, laid restrictions on others as to the occupation of time, that I should not shrink from the same restriction myself; although, were I to endeavour to express fully the gratitude I feel, first for the appointment, in the second place for the numbers in which you have come to our city, and lastly, for the extremely kind and cordial manner with which you have received me, and which I shall never forget, I should detain you still longer. I beg to thank you for your kindness.

LUNCHEON.

Through the hospitality of the local members, a most elegant and abundant luncheon was provided each day, from 2 to 3.30 P.M., in an adjoining room, for the use of the gentlemen attending the meeting.

THE DINNER.

At 7 p.m. the President and a large number of members dined together in the smaller saloon at the Victoria Rooms. The gallery was occupied with a large number of ladies. During the dinner the band of the Bristol Artillery Corps played a good selection of music. The post-prandial proceedings were enlivened by some vocal music. The gentlemen at the dinner included Dr. Symonds (in the chair), supported by Sir Charles Hastings, Mr. Commissioner Hill, the Mayor (Mr. S. V. Hare), the High Sheriff (Mr. Cave), the Rev. Canon Guthrie, the Rev. Dr. Bell, and Dr. Fox. The total number present was 214.

The vocal performers having sung “Non nobis Domine,”

The PRESIDENT said: I have to propose as the first toast “Her Gracious Majesty,” as the secular chief of the constitution, as the image and reflection of the greatness of the nation. But we drink her health, too, with all our hearts, as an example and type of those virtues which we as medical practitioners, familiar with the domestic life of England, know so well how to appreciate.

The PRESIDENT next proposed “The Prince and Princess of Wales, and the other members of the Royal Family.” He said: I need not remind you that this is the first time that we have had the honour of drinking the health of one of those illustrious personages. The Princess of Wales has vanquished all hearts, and we all fervently hope that her conquests may be as lasting as their acquisition has been rapid. We hope that the Prince and Princess may be happy in each other, happy in the happiness and prosperity of that nation from whose destinies their own are inseparable.

The PRESIDENT. The next toast is “The Army and Navy.” We all feel grateful to those gallant defenders of our country, and of all we hold dear, who are in the regular service. We also feel extremely grateful to those who, in the time of great anxiety, came forward to relieve the anxiety of the nation. Now we, as medical practitioners, are always proud of the success of our efforts in averting disease—what we technically call prophylactic treatment; and I am sure we must as a nation be proud of the success of those efforts in averting danger which have resulted in the bold prophylactic treatment which our volunteers have exemplified. With this toast I beg to couple the name of a gentleman who represents both the regular service and the volunteer service, Dr. Goodeve of Her Majesty's Indian Army, who is now also Captain Goodeve of the Bristol Rifles, on be-

half of the army and volunteers; and Mr. Fegan, of Her Majesty's Ship *Dadalus*, on behalf of the navy.

Dr. GOODEVE and Mr. FEGAN acknowledged the toast.

The PRESIDENT. I have now to propose a toast which we shall receive with great respect, "The Bishop and Clergy of the Diocese, and the Ministers of other Denominations." There is an old Latin epigram which distinguishes the respective functions of the clerical and the medical professions,

"Utile ille labor per quem vivere tot ægri;
Utilia per quem tot didicere mori."

Now, although we shall allow, I am quite sure, the point of this epigram, yet at the same time, in our medical capacity, we rather look on our clerical brethren as our auxiliaries in the work of keeping our fellow-creatures alive; and I am sure that we gratefully acknowledge the aid which we receive from them in promoting sanitary improvement. We must thank them for so often diffusing useful information among their flocks as to the best means of preserving health and averting disease; and not only that, but I venture to say that we also recognise the value of their services in the sick room, when by the judicious use of words of hope and sympathy and consolation, they bring about a cheerful and tranquil state of the patient's mind, highly conducive to his recovery, very supporting to the efforts of his friends, very helpful to the efforts of his medical advisers [*Cheers*]. With this toast, I have the pleasure of associating the name of the Rev. Canon Guthrie [*Cheers*], a gentleman who by his abilities, his learning, his benevolence, his conduct and bearing as a high-bred English gentleman, reflects honour on one of our great national institutions, the Church of England. But he has a special claim on us, because of the warm and active interest which he has ever taken in our medical institutions. There is one institution in this city which owes a great debt to him and to those who are dear to him; and I cannot forbear mentioning the name of his admirable lady [*Loud Cheers*] who, it is well known in this district, might be termed the Florence Nightingale of the West [*Cheers*]. I will not particularise the benefits conferred upon our institutions by Canon Guthrie and his intimate relations. I know that if I were to do so it would pain him to have his good deeds recounted in his presence, I therefore call upon you to drink his health; and with his also, I beg to associate the name of a gentleman who has long been a faithful friend of this Association, the Rev. Dr. Bell, who has exercised both the functions which were described in the Latin epigram which I quoted to you; for he commenced his life in the service of medicine. But, although he has passed from medicine to theology, I believe he casts a longing, lingering look to medicine, for he has never failed to attend the meetings of the Association from its formation [*Cheers*].

The Rev. Canon GUTHRIE. It is with very sincere thankfulness that, as far as voice will permit me, I rise to return thanks, first of all, for the compliment which you have paid me, and also, and of course still more, for that very flattering reception with which the name of one so dear to me has been received. For myself, I have really no claim, no merit. I have always said, as a member of the cathedral of Bristol, that I consider its members as neither more nor less than curates for the city of Bristol, and that you have a fair claim to every service which we are enabled to render you. I feel it to be a great privilege to meet a body so learned and so highly esteemed as the medical profession. There is no body of men for whom I feel a greater respect. There are among them those whom I have the pleasure of numbering as some of my most intimate friends, of whom human nature may positively be proud. We are, in allusion to what the President has said, two kindred professions, each having indeed very much the same walk, and the same sphere of labour; and not only that, but the same object in view. I believe our one great

object is to alleviate, as far as we can, human suffering and human sorrow; and I trust that both professions will always feel the greatest confidence and friendship, for there can be no better judges of the other than each of them themselves; and I may say that there is no reason why the one should at any time clash or interfere with the other. At the same time, it must also be very clear—at least it is clear to me—that there may be a little difference in our principles in this way; yours is, of necessity, a society of progress; your progress is your motto; you go from one experiment to the other, one discovery to the other; and we can say to you, God speed you in your investigations after truth. But ours is, from necessity, what I may call the conservative principle. Just in the same manner as in the State it is a most admirable invention—if one may so say—that there is a party of progress, and a party conservative of that which is already established; so it may be that we are somewhat of a conservative nature. I should be very sorry to think that the interests of religion were in any way mixed up with non-progress, or should offer any opposition to the progress of science. I cannot conceive any position more fatal to the best interests of society or of truth itself, than to show that there can be any real opposition between religion truly so-called, and philosophy so-called, because I am convinced that no one truth can ever contradict another known truth [*Cheers*]. I therefore say, that, conservative as we all are by profession, while we say, Go on, investigate, follow up your discoveries, trace those links which bind body to mind, all those mysterious processes which bind life and disease; let us also say, Do not be in too great a hurry to theorise, to dogmatise, to found your theories on insufficient data; but do not ask us, if you please, conservative as we are, to part with any acknowledged truth which has borne the test of our experience and of age, and to give up that, till you show us you have something better to put in its place [*Cheers*]. So long as the investigation of truth, and the discovery of truth is conducted in a reverential spirit, in a spirit of prayer, with a sincere love of the inductive process; so long as this is followed out in that spirit, in that same spirit which marked the discoveries of Bacon and Newton and other great men, you need have no fear of failure. Go on, and prosper. *Magna est veritas, et prevalebit* [*Cheers*].

Rev. Dr. BELL. I feel almost ashamed to stand up, lest I spoil that speech which has been just delivered. I cannot possibly improve it, and therefore I fear to injure it. But I feel proud—if such an expression may come from a minister of the Gospel—I feel proud this evening, in standing before this assembly of my former professional brethren. Nay, I return to the observation of your President, and say that I do still cast behind a longing, lingering look to that profession. For, after I was ordained a minister of the Gospel, I went to the meeting at Oxford, and I took the place of the son of Sir Charles Hastings, who was the secretary of the Reform Committee; and I took his place, and advocated reform, and I felt my way gradually in this manner. I was in doubt whether my former professional brethren would look on me as a renegade brother, or as one who has adopted the other profession in sincerity and in truth. When I stated at Oxford that I had left one sacred profession (for I hold that medicine is a sacred profession) for another still more sacred, I received the cheers and the approval of my former professional brethren. That gave me courage. From that moment I resolved, having their approval as well as the approval of my own heart, to support legitimate medicine as long as I lived [*Cheers*]. I stand before you this evening, not so much to return thanks as a minister of that church which has been so nobly proposed, and responded to by the Rev. Canon; I stand not so much in that light, as I come before you to convince you, if possible, if any language which I can bring before you can do it, that I am thoroughly in

earnest in support of legitimate medicine. I never fail in any way to cast into the shade everything in the shape of homœopathy, hydropathy, or any other pathy, because I think they are all diseased productions [*Cheers*]. And I hope and trust that with my clerical brethren I have been useful in showing the folly of these pathists. Let me remark that the clergy support homœopathy for this reason; not from any desire to injure the medical profession, but from a desire to do good, and they think it is an easy way of doing it. But they are mistaken, and I never lose a single opportunity of pointing out to them how dreadfully they are mistaken. I have never failed to attend your meetings, because I had the approval of my medical brethren. I have many reasons for adhering to this Association. I adhere to it, in the first instance, because I wish to maintain legitimate medicine, and to encourage the profession in every way I can. In the second place, I am anxious that this Association shall prosper, because I believe that by association many of those disagreeable occurrences which occasionally take place will be done away with, if medical men will meet together. In the third place, I am anxious to be present at these meetings to support him with whom they originated. I have the greatest respect for Sir Charles Hastings, and I will take every opportunity in my power of showing my fidelity to him and to the whole profession. I return you my best thanks for this kind reception [*Cheers*].

The PRESIDENT. I have great pleasure in proposing "The Health of the Mayor of Bristol" [*Cheers*]. The office of Chief Magistrate of this ancient and important city—a city containing such an immense population, is a post of high consideration; and I can appeal to all the gentlemen who belong to this district to the truth of what I say, that it is the unanimous opinion in the district, that the gentleman who at present holds that high office richly deserves all the honour the office can give. And I say more than this; that that gentleman enhances the dignity of the office by the manner in which he discharges its duties, by his exhibition of those qualities which should distinguish a governor—quiet dignity, courtesy, and munificence [*Cheers*].

The MAYOR (S. V. Hare, Esq.) I rise to return my warmest thanks for the toast which you have just heard and received; and my acknowledgments are specially due to you, sir, for the very kind manner in which you have introduced it to this distinguished assembly. It is one of the most gratifying events connected with my year of office, the meeting of this important Association in Bristol, presided over by a member of the profession so eminent and so accomplished as Dr. Symonds [*Cheers*]. Thirty years, I believe, have passed, since Bristol had the pleasure of welcoming the British Medical Association, and it came upon me quite by surprise when I heard that we should have a similar privilege this year. It would ill become me in your presence to dilate upon the great advantages that must accrue to science by holding these annual meetings; but I may be permitted to express my high opinion of the inestimable blessings which are conferred upon mankind by the medical profession. It is beyond all question, that health is the greatest blessing. Many there are, alas! who, until they have lost it, do not fully appreciate its worth; but when the means used for its recovery have been blessed by a Beneficent Providence, and health is once more restored, how deeply grateful ought we to feel to the skilful hand which prescribed and dispensed the remedies. And we cannot be too thankful to you, for the kind manner in which you attend our hospitals and dispensaries, and there find your sole reward in carrying out one of the attributes of our Divine Master, conferring the most inestimable blessings upon those who cannot afford to have treatment at their own homes. I hope your visit to Bristol has been a pleasant one [*Cheers*]. It is a city rich in antiquity, and its neighbourhood abounds with the most

beautiful scenery. Here the lover of nature and of art may enjoy himself to his soul's content; and I hope you have been so pleased that you will extend your visit over the present week.

Mr. Commissioner HILL. We are honoured by the attendance of two great officers of this most important municipal corporation. You have paid the honour which is due to every Chief Magistrate, but to this gentleman in particular, who has so well filled the office of Mayor. The next in command, if I may so speak, is the High Sheriff of this city [*Cheers*—a gentleman whose family has been settled in a neighbouring county and in the city of Bristol, for a greater number of years than I am able to specify—a family which is well known, but not better known than respected. The specific duties of High Sheriff, though of great dignity, are not very onerous. I trust he will never be called upon to perform the only awful one connected with the office. Nevertheless, it is highly desirable, that the position should be filled by the most competent person; and when I tell you that Mr. Cave is most sedulous in his attention to the public institutions of the city, and that he is as exemplary in the performance of the duties incident to his office as in the performance of all private duties, you will receive his name with respect. But when I tell you that he has the advantage of being most nearly allied in marriage to our excellent President, his name will be received with cordiality [*Cheers*].

The HIGH SHERIFF (C. D. Cave, Esq.) This is not the first time I have had to respond to this toast during the last few months; but I do so this evening under no ordinary circumstances. I have hitherto been in the habit of addressing inhabitants of Bristol; this evening I address strangers. I feel it to be a great honour to hold the office of High Sheriff of Bristol. This ancient city boasts of many peculiar privileges. I may mention the post which I now fill. I may mention the fact, that Bristol is a city and county in herself; that we have a Mayor's chapel; that we have a Mayor who, as we are informed, is, at any rate for part of the year, a Lord Mayor, though his lordship does not press his claim. I may remind you of an article which I read in the *Times* a few days ago, in reference to the fact that a Prince of the blood-royal, Commander-in-Chief of Her Majesty's Forces, had been made a Fishmonger. That article went on to say, that though apparently to step from a Prince to a Fishmonger, was from the sublime to the ridiculous, yet as our ports increased, and our commerce rose in importance, so to hold an office in connection with commerce was a dignity which gentlemen may well fill [*Cheers*]. My close connection with our President prevents my saying much with regard to him; but I was a very grateful listener to his opening address; and as a son may follow in the footsteps of his father, so I may be allowed to defend the public, and to say that he read us too severe a lecture. We all honour the medical profession. We look up to its members with reverence; and when we are most in need of sympathy and help, we come to them for assistance. I return you my most sincere thanks for the honour in which you have received my health, and to Mr. Commissioner Hill for the kind manner in which he proposed it [*Cheers*].

The PRESIDENT. I have now the pleasant and yet somewhat onerous duty of proposing to you what we must, with due deference to all the toasts which have gone before, consider the toast of the evening. I have the honour of proposing to you "Prosperity to the British Medical Association" [*Cheers*]. This Association was designed to give unity, and that strength which comes with unity, to the medical profession. It was designed to gather up, and unite together, the loose faculties and energies of the profession, which, unless bound together, were likely to run to waste. It was designed so to marshal the wills and minds of individuals in the profession that they might as an organised mass

operate for the good of mankind. It was designed to suggest, to insinuate, to encourage, and to direct great scientific inquiries. It was intended to be a power whereby the profession should communicate with the legislature and the public on topics important to the interests of the profession, and vital to the well being of the community at large. And furthermore, it was intended to bring together the members of the medical profession on terms of amity and good fellowship [Cheers]. How it has succeeded in all those intentions I need not tell you; I appeal to the history of the last thirty years. We have always delighted—and we should be extremely ungrateful if we did not delight—to associate this toast with the name of our distinguished, and venerated, and, I may venture to say, dear friend and founder, Sir Charles Hastings [Loud Cheers]. It is a great thing to have conceived the idea of forming such a noble Association; and it was a still greater thing, by talent of no ordinary description, by concentrated energy, by indefatigable industry, to succeed in setting it on its legs, and overcoming the difficulties connected with the earlier history of its existence. I remember at the meeting in Bath, in 1838, a conversation I had with a gentleman who was one of the early colleagues of Sir Charles Hastings—a gentleman well known to some few of my brother veterans in the profession. I remember, when we were talking of this Association, that he, who knew all the circumstances under which it had originated, all the difficulties it had to contend with in its early days, evidently believed that there was no single person in the profession at that time who could have overcome those difficulties, but one who combined in so remarkable a degree a certain order of talent, tact, industry, and energy, such as that which was possessed by Dr. Hastings (for at that time all Sir Charles's honours had not come upon him). I am sure that we all congratulate our Founder on the success of his undertaking [Cheers]. We all rejoice in the vigour which he manifests amongst us at this time, and we all fervently hope that for many years he will be able to watch over the prosperity of his creature. And we all fervently hope that he will long live to grace with his presence the meetings of the body with whose name his name and fame will be imperishably united. [Cheers].

Sir CHARLES HASTINGS. I am sure it is not in human nature to be otherwise than deeply moved by the manner in which my name has been brought before this great Association. I should, indeed, vainly endeavour to give any expression to those feelings which are struggling in my bosom, and I therefore merely say, I thank you, I deeply thank you, for all you have done, and for all the glowing cheers you have given, in honour of my name on this gratifying occasion. It is true that three decades have passed away since we last assembled in this great city. Then this Association was struggling in its birth, and its members and its friends here nursed it in its infancy, and enabled it to struggle through the difficulties which awaited its first ushering into the world. It was in this city that the broad and deep foundation of all that has been said and done in this Association was so well laid. There is not one of the things which we have accomplished, but was mentioned and brought forward here by the great luminaries who then shone in this firmament. I will not mention names; because to go back and call to recollection dear friends, now no longer moving amongst us, would indeed be painful. I can only say that, on that occasion, although fully seeing the difficulties we were to meet with, we went shoulder to shoulder, and declared that no opposition should arrest our progress. In the last thirty years, you are well aware, many circumstances have arisen which have favoured mutual progress; and that distance which was supposed to be an obstacle that would greatly retard our progress, has proved by events to be no impediment at all. The penny postage, the railway system, and the electric telegraph,

have been sent by Divine Providence to assist us; and I will venture to say that, but for those three great inventions, this Association could never have risen to its high position. When at our meeting at the metropolis it was proposed that Bristol should be our place of gathering this year, I ventured to prognosticate that, great as was the success of our metropolitan meeting, it would be equalled if not exceeded by the meeting this year [Cheers]. Whether my prognostication has been verified I leave you to judge [Cheers]. *Si monumentum queris, circumspice.* I will venture to say that the remembrance of the success of this Association in the city of Bristol will be long cherished by its members. Although we have visited London, Oxford, and the great marts of commerce, on no occasion has our success exceeded that of the present meeting. As I have already said, we here laid broad and deep the foundation of this Association. In every part of the country the Association is everywhere known and esteemed; and not only so, but our colonial empire is about also to experience its benefits, for a branch is about to be planted on the banks of the Ganges. Thus not only in our own great country, but in our colonial possessions, will the benefits which we are enjoying be extended to the human race. The age of man is three-score years and ten, and I am fast reaching the limit of that period. I therefore feel that the day of my activity will soon close. But the Association is flourishing. I see a vast unbounded prospect placed before us, and neither shadows, clouds, nor darkness rest upon it. *Floreat semper.* Gentlemen, I thank you.

Dr. RICHARDSON. The great advantage of these gatherings is this:—that we meet as friends and part as brothers. But whoever may be introduced to our brotherhood, there is one to whom he first looks, and on whom every eye is focussed—the President of the occasion. I cannot say—seeing that I have been a lecturer on dietetics, that I know nothing about the effect of an excellent dinner, and what it will do to assist a speaker; but I feel a very happy man that on this occasion it is my province to propose the toast of the evening—"The President of the British Medical Association" [Cheers]. I cast my eyes back on the history of the Medicine of to-day; and I ask, who is there here who has more effectively applied his exertions to the forward movements of our science? who more distinctly, more deliberately, more firmly, has contributed to its interests, than he by whom the *Library of Medicine* was so enriched? than he who four years ago wore the red robe in the College of Physicians with such distinction and honour? I turn from these professional traits to the local history of our President; and, I ask, who among local men can be considered more thoroughly beloved, than he who at this present time is the first man of our meeting and of our Association? It has ever been the object of our Presidents to do something distinguished in their year of office, and to introduce us, their guests, into lands of reality and beauty. Well! the President of this year has done all this; but, I ask you, did he not last night do more? Did he not lead us into fairy land itself? [Cheers.] My own mind wandered, I confess, from the scene to which he introduced us to another sphere of thought, to the *Midsummer Night's Dream* of our greatest dreamer, and to the melodies of that great Jewish musician who has rivalled even the master from whose words his own art borrowed its immortal inspiration [Cheers]. Once more, we separate the present of our President, and look at him in the past. We see him as a mere student, rushing from the benches of the lecture-room into the wide world, having in his heart if not on his lips the words of one of our modern poets:

"I will go forth 'mong men, not mailed in scorn,
But in the armour of a pure intent;
Great duties are before me and great songs.
And, whether crowned or crownless when I fall,
It matters not, so that God's work is done."

And from that beginning until now, we see him rising to pre-eminence, until at last he sits at our head, in the proudest and the highest position that any man can occupy in that profession in which God's work is, as I believe, ever best done [*Cheers*]. Gentlemen, let us leave him there, nor say another word, except to express the hearty and the honest hope that, till the last vital spark shall cease to animate him, he may continue to receive the love and the admiration of his friends, as the natural reward for the usefulness which he has achieved, and as the reflex of that happiness which he has cast upon all with whom he has been brought into contact. I propose "The President."

THE PRESIDENT. I am now approaching the pleasantest, the most agreeable, but the most difficult task I have yet had to perform as your President. For many of the duties of my office I have felt my incompetence but too strongly. Your kindness has supported and enabled me to get through it somewhat better than I expected; but on this occasion I feel my incompetency more than ever. I cannot tell you how I feel thankful, in the first instance, for your placing me in this office, of which any man might be proud; how I thank you for the manner in which you have gathered round me on this occasion; for the courtesy and the cordiality with which you have greeted me, and received any attention which I have shown you to make this visit a pleasant one. For all this it is impossible to tell you how grateful I feel. I hope that, as I shall treasure up in my memory the recollection of the last three days, and especially of your kindness to me, that I shall also have a deep lesson impressed on me—a lesson which was brought before my mind in those eloquent words which fell from my friend (for so I will venture to call him, though I have but recently known him), Dr. Richardson. There was one word in his speech which touched me very deeply. He never rises to speak without moving his audience; but when he alluded to the good one might do, the high motives under which one should act, I confess I felt deeply moved. I have had many pleasures, and I hope you have had some. Of some you have partaken—they are common to us all. I have had the great delight of renewing many old friendships—what we used to call the *reintegratio amoris*. I have also had the satisfaction of forming the beginning of many new friendships, which I trust favourable circumstances will ripen. And after all this enjoyment, I hope there will remain deeply impressed on my mind the feeling of the high vocation, the lofty aims, of that profession in which we practise; and I trust I may say that I hope that this feeling will be partaken of by all my friends on this occasion. I trust that we may all have in these meetings impressed on our minds that we must not only fulfil the immediate duty of our daily lives, but endeavour so to pursue it that we may lighten the labours of those who come after us. It would be a great thing if we could every one of us, before we die, say, "I have taken my part in crushing, in destroying, in treading under foot, some source of common misery, that shall never again bring sorrow or suffering." But though so glorious a result may not perhaps be reached, we may all of us hope and strive so to improve our art, that much of evil may be reduced, that much suffering may be shortened, and made more tolerable. It is no dream that much of the misery of the world may be abolished and extinguished. Much has been already destroyed. It is no dream that the world may be made better; this has been realised over and over again, unless all history is a tissue of fables. In the present day, in particular, there is a good work beginning. And I believe that posterity will look on what is now transpiring in the world as the beginning of good; and I believe that the great work of the amelioration of the human race may be advanced by all, if we will only believe and lay it to our hearts that it is indeed possible that we may leave the world better than we found it.

For we have unquestionable proofs of the beginning of good in these times, ever since the beginning of this Association. Look only at the great subject of education. Thirty years have passed since this Association began, and yet I remember it is not more than twenty years since I was stopped in the street by a friend—a man of some consideration then, but now passed away—John Sterling; and he said, with a face radiant with triumph, that last night the thin edge of the wedge was got into the House of Commons, that they had actually passed a grant of £30,000 for public education. Now we have our Chancellor of the Exchequer looking somewhat blank when that sum amounts to a million, or something like it. Before that time, sanitary reform had but just begun. It was but shortly before the commencement of this Association, that my friend Dr. Kay Shuttleworth had brought out a pamphlet respecting Stockport, which was the beginning of the great sanitary movement of the last thirty years. Since then, how much has been done on this great question? The repression of crime, the reformation of offenders, and I know not how many other matters, to say nothing of the great discoveries in science, and the great inventions in art, and, I would also say, the unfolding of great natural laws, the increasing harmony of the sciences—I believe these all tend to the abolition of evil, and the increase of good, and the enlargement of happiness. I cannot but believe that, as sciences converge, as we have heard to-day how mechanics and chemistry are intimately connected with physiology, and how physiology is recognised as connected with the science of mind and the science of morals, and how every day it is recognised that these sciences are, and must be, connected with the science of political economy, that all these sciences have a bearing on political matters—I cannot but believe that in the harmony of the sciences we have the dawning of great good to the human race. It cannot be otherwise. All knowledge comes from this divine source; and I believe that we might, in this harmony of the sciences, find what one of the great poets of our land—Campbell—says of the harmony of the heavenly bodies:

"For in your harmony sublime,
I read the date of distant time,
That man's degenerate soul from crime shall yet be drawn,
And reason in this mortal clime immortal dawn."

DR. FALCONER. The University of Cambridge has now opened her arms to receive us; and we cannot but hope that we shall meet with a warm embrace. It may be regretted that we shall not be able to have the Regius Professor of Medicine as our president next year, from the circumstance that he is visited with affliction in his family, which we all regret, and deeply sympathise with; but, in default of his presidency, we have a distinguished member of the Council and Senate of that university, who has kindly consented to accept the office of President on that occasion. I propose the health of "Dr. Paget, the President-Elect." [*Cheers*.]

DR. PAGET returned thanks.

MR. DANIELL, in an eloquent speech, proposed "the Readers of the Addresses." He specially characterised the address of Dr. Budd as being magnificent to a degree; that of Mr. Prichard was of such a character that, when it was calmly read by the members, they would not say that it fell below the standard which it ought to possess; while in Dr. Herapath's address there was enough food for a twelvemonth. He had not heard the address of Dr. Swayne; but he could not do otherwise than include him in the toast.

DR. BUDD, in reply, for his colleagues and himself, said that they deeply appreciated the honour placed upon them; but it was an honour which had brought with it a sense of great responsibility. They had felt that they had to sustain the reputation of their city, rich in great traditions of all kinds, and able to reckon up a goodly number of illustrious men in the medical profession.

Their difficulties had been greatly added to by the circumstance, that they so closely followed the great Metropolitan meeting. The admirable addresses then delivered had running through them all that consciousness of a great purpose and of high motive which characterises the feelings and sentiments of the profession in these times; as well as a precision and a severity in the manner in which the subjects were dealt with, that rendered it a very anxious thing to succeed those who delivered them. Dr. Budd concluded by assuring the members that himself and his colleagues had done their best; and thanked them for the manner in which the toast had been received.

Mr. PRICHARD, Dr. HERAPATH, and Dr. SWAYNE, also returned thanks.

The PRESIDENT proposed "The Health of Mr. Nassau Senior, once Professor of Political Economy at Oxford, and Mr. Commissioner Hill," who were present as visitors.

Mr. NASSAU SENIOR and Mr. Commissioner HILL returned thanks.

Dr. STEWART. For the last three days, in this western metropolis of England, this great emporium of commerce, the more renowned on account of its natural beauty, we have been enjoying unbounded hospitality—not only the feast of reason, but the flow of soul; and for all this we have been indebted, not to yourself alone, sir, but to others who for months past have taken upon them the burden and heat of the day, seeking to provide for us as handsome, courteous, and hearty a reception as any persons could expect within the limits of England. We have heard much of the London meeting. I had something to do with it; and therefore it is, I suppose, that I am privileged to propose this toast; but I can honestly say that not only here in Bristol have you equalled, but you have far surpassed, all our efforts in the great metropolis. The labour which is required to be expended in arranging such meetings is incomprehensible to those who have not taken part in it; and upon one or two pairs of shoulders generally rests all the burden; and Dr. Marshall has had the burden on his own shoulders. [*Cheers.*] I have a very particular interest in my friend here. I knew him when he was a child; and I was greatly rejoiced, after a long separation, to see in London the excellent son of my much esteemed friends the Rev. Mr. and Mrs. Marshall. I give you "The Health of Dr. Marshall".

Dr. MARSHALL acknowledged the toast.

"The Health of Dr. Charles Fox, the President of the Bath and Bristol Branch," was then drank and duly acknowledged; and the President left the chair.

THALLIUM IN A MINERAL WATER. We hear that Professor Mulder, of Utrecht, has just found this metal in a water from Java, which is said to be used by the natives, and praised for its medicinal virtue. (*Chem. News.*)

SUICIDE OF ALLEGED CRIMINALS. Readers of our city papers must have noticed the frequent instances of attempts at suicide by persons detained in confinement. These occurrences would not be worthy of remark if they were limited to prisoners awaiting the execution of the death-penalty, or even condemned to a long period of imprisonment. We should then have an adequate cause for the attempted self-destruction, for in all periods of history, criminals have been guilty of this crime. But in this instance the crime is more frequently attempted by quite another class of prisoners; they are those persons who are awaiting their trial, and who have been charged with grave crimes. In nearly every case the victim of self-destruction has left behind him an explanation of his last criminal act. The exciting cause, if it may be so designated, is confinement in the drear, noisome cells of a city prison. (*American Medical Times.*)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

THE length of the Report of the Annual Meeting of the Association unavoidably compels us to postpone the publication of numerous articles which were in type.

MEDICAL ETIQUETTE.—SIR: Your answer to my question of medical etiquette is hardly satisfactory to either of the parties concerned, inasmuch as it appears to be founded upon the supposition of what did not occur; viz., that C. D., after his interview with A. B., saw the patients again, without A. B.'s consent.

C. D. acknowledges, and would be the first to affirm, that if he had visited the patients further, having discovered that they were under A. B.'s charge, he would have been guilty of unprofessional and of ungentlemanly conduct. C. D. did not do so. He called, immediately he found A. B. was in attendance, upon A. B.; and if A. B. had thought proper to decline an appointment, C. D. would have visited the patients no more.

I am glad that you think, as I do, the question sufficiently interesting to bring it prominently before our brethren of the Association. There are several points in this comparatively new kind of practice which will well bear ventilating in the JOURNAL.

May I take the opportunity which this note to you gives me of asking your attention also to another point, which, to me and to many of my friends, has been productive, I will not say of misunderstanding, but of discussion? I allude to the proper plan to be pursued when a "club" patient consults a physician. This opens up a large amount of discussion, and I will not enter upon it now; but at some future time, I shall be glad to offer some suggestions, which a pretty large experience, and very many conversations with my medical friends on this subject, have proposed to me. I am, etc., X. Y. Z.

[The course pursued by C. D., as detailed in this note, was perfectly proper. In X. Y. Z.'s former note, he said that C. D., after having discovered that A. B. was in attendance, "made a cursory examination; said he would not interfere with the treatment," etc. Our objection had reference to this "cursory examination," etc.; and this was what we meant by "visiting the patient further."—EDITOR.]

COMMUNICATIONS have been received from:—Dr. WILLIAM B. HERAPATH; Mr. W. GIMSON; X. Y. Z.; Mr. T. MARTIN; Mr. W. M. CLARKE; Dr. T. K. CHAMBERS; Dr. HUMPHRY; Dr. GRAILY HEWITT; Dr. C. R. HALL; Mr. E. WILSON; Mr. I. B. BROWN; Dr. KIDD; Dr. J. G. SWAYNE; Mr. R. O'CONNOR; Dr. W. H. RANKING; Dr. HARLEY; Dr. HITCHMAN; Dr. FLETCHER; Dr. LIONEL BEALE; Mr. MOORE; Dr. STRUTHERS; Mr. J. AMESBURY; Mr. WALKER; Dr. W. MOORE; Mr. H. APPLETON; and Mr. SPENDER.

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Clinical Records.

BY

HENRY LEE, Esq., F.R.C.S.,

SURGEON TO ST. GEORGE'S HOSPITAL.

IX.—LITHOTOMY.

GEORGE EVANS, a very stout man, 35 years of age, was admitted into St. George's Hospital on May 27th, 1863. He complained of an ill-defined uneasy sensation about the scrotum and perinæum, which recurred at uncertain intervals. He had no pain in passing his urine. There was no blood in his urine, nor had he passed any mucus. The urine had never stopped suddenly as he was passing it. His family had suffered from gravel; and he himself had formerly passed some pieces resembling "Cayenne pepper crystals". During the last eight months, however, nothing of the kind had taken place.

Six years ago, he was sounded at Guy's Hospital; but nothing was at that time detected.

On May 28th, a sound shaped like a lithotrite was introduced, and a stone was immediately felt; and on the 30th a small lithotrite was used with the same result. The passage of the instrument on each occasion gave him considerable pain; and on the 31st there was a considerable quantity of blood and mucus in the urine.

The urethra was in this patient evidently smaller than usual; and the irritation which the passage of instruments caused induced him to request that some other mode might be adopted for getting rid of the stone. The urine was acid; and fifteen grains of carbonate of potash were given three times a day.

On the 4th of June, the operation of lithotomy was performed. Chloroform having been administered, a free incision was made on the left side midway between the tuberosity of the ischium and the rectum, extending from two inches in front of the anus to two inches behind it. The groove of the staff was then found between the bulb of the urethra and the erector penis, and the knife carried along it to the prostatic portion of the urethra. The perinæum was found to be very deep, so that the finger introduced as far as possible into the wound only reached the anterior part of the prostate gland. The forceps passed along the opening, on the withdrawal of the finger, came immediately into contact with the stone. The blades, being now widely separated, failed to grasp the stone, and could be felt gliding over its upper surface. The direction of the forceps was therefore changed, the blades being held in a vertical instead of a horizontal position in relation to each other. The stone was now at once seized in its smallest diameter, and, by means of traction in various directions, was, after some little difficulty, removed.

The stone was of a tolerably large size, and remarkably flat. This peculiarity of shape may have accounted for the absence of the usual symptoms of calculus previously to the patient's admission into the hospital. A comparatively large and flat surface must have always been in contact with the coats of the bladder, and consequently very little pressure could have fallen upon any

one point; hence, probably, the absence of blood, of mucus, or of pain in passing urine. The same peculiarity of form would account for the slight difficulty experienced in seizing the stone by the forceps. The calculus lay flat against the back part of the bladder; and the blades of the forceps, when separated, moved over its upper surface without being separated sufficiently far to seize it; but when the instrument was held in a different position, the stone at once came within its grasp.

The day after the operation (June 5th), the urine passed freely through the wound, and some passed through the urethra. Tongue furred; bowels open; pulse 68. He had no pain, and had slept well. His appetite was good.

He remained very comfortable, without any unfavourable symptom, until the 12th, when, feeling wet, he called the nurse's attention to the circumstance. A large clot of blood, amounting to about fourteen ounces, was found in the bed. The wound was also filled with a clot of blood, and some fluid blood passed by its side and along the urethra. Some red lotion was introduced upon a piece of lint into the wound, and tannic acid was given internally. The face was now pale; the tongue furred and œdematous; pulse 116.

On June 13th, there was no return of the hæmorrhage. He had passed his urine freely. Tongue moist and furred; pulse full and strong, 84. He was ordered nitro-muriatic acid with bark.

June 14th. Urine passed both through the penis and through the wound.

June 19th. He could hold his urine for six hours; and it then passed nearly all through the urethra.

June 21st. No urine passed through the wound, which was cicatrising. He was convalescent.

July 10th. He left the hospital well.

X.—UNHEALTHY ULCERATION AFTER VACCINATION.

Several severe cases of unhealthy ulceration, arising from vaccination, having presented themselves at St. George's Hospital, I undertook, some weeks ago, a microscopic examination of the lymph of the vaccine vesicle. Various specimens of lymph were furnished me by Mr. Smith, the obstetric physician's assistant at the hospital; and we were careful to examine in the first instance the lymph as it exuded from a simple puncture of a vesicle upon the eighth day. In all the specimens so examined, where no admixture of other matters had taken place, the lymph was found to be perfectly transparent; no globules nor cells of any kind were to be perceived. When care was not taken in collecting the lymph, blood-globules and portions of epithelial debris were occasionally found in the specimens; but no pus-globules could be detected in lymph taken from healthy vesicles which had run their natural course.

Dr. Marston, of the Royal Artillery, has been good enough to repeat the observations. He found, in a case that he had an opportunity of watching carefully, that from the seventh to the eighth day no cells of any kind could be detected in the lymph of the vaccine vesicle. On the ninth day, a few round granular or pus-cells were found; and, on pressing the glass upon the vesicle, some of the deeper fluid was obtained. This showed a

larger number of cells. At this period, the skin surrounding the vesicle had begun to redden; and the vesicle was no longer transparent, but opaline. On the tenth day, the redness of the skin around the vesicle had increased. The vesicle itself was full of a milky fluid: this, upon examination, appeared to contain numerous pus-cells.

Dr. Marston found, however, that if a vaccine vesicle be irritated, the surrounding skin will become red on the eighth day. The contents of the vesicle will at the same time become opaline or yellowish; and, if examined microscopically at this period, will contain cells having the appearance of pus.

These observations have now been sufficiently multiplied to warrant the following conclusions:—

1. The ordinary vaccine vesicle yields a fluid, from the fifth to the eighth day, free from any cells allied to pus-cells. The only evidence of any organised products at all in the fluid, at these dates, is the occasional appearance of a few granules, nuclei, or cell-like particles; although, as a rule, even these are entirely absent.

2. Upon the ninth and tenth days, cells may generally be detected; few in number upon the former, but very numerous upon the last named day. These cells possess the characters of pus-cells.

3. When the vaccinated spot, however, has been or is attended with the phenomena of inflammation—heat, redness, and pain—such as it frequently is if the part have been irritated, then pus-cells can be discovered in the vaccine fluid at earlier dates than the ninth day.

Now there is much evidence for believing that the purulent character of a fluid may impart to it other and more active properties than it otherwise possesses. Pus obtained from various sources, and not only what is called specific pus, has been found to be capable of initiating inflammation in mucous membranes to which it has been applied.*

The practice of our ophthalmic hospitals has proved this in the case of the human conjunctiva. A film of pure mucus might be retained in contact with that membrane without risk; but not so a purulent secretion.

In the case of specific pus, these properties are still more marked. A gonorrhœal pus (if that may be termed specific) will induce a violent purulent conjunctivitis on its application to the eye; and it is now well known that, although the secretions afforded by an ordinary indurated chancre will not be inoculable upon the same individual, if such chancre be first made to yield pus, by artificial irritation, it is capable of inducing some result upon inoculation of the patient's skin.

It is difficult to lay down rules so positive as to be invariable in their application, as to the best period for taking lymph from a vaccine vesicle, because the disease is subject to some irregularities and modifications in its course in different individuals. The lymph yielded by a vesicle from the sixth and prior to the end of the eighth day, when the vesicle is umbilicated and shows a faint trace of peripheral redness, is generally quite pure and void of cell-growths. But by the aid of the microscope

we may very readily determine the quality of the vaccine fluid in this respect; and I would venture to suggest that the detection of pus-cells should decide us against using it for the purposes of vaccination.

Original Communications.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON THE VARIOUS FORMS OF PARALYSIS.

By EDWARD MERYON, M.D., F.R.C.P.

[Continued from page 86.]

PARALYSIS FROM TABES DORSALIS.

A MORE tractable form of paralysis is not unfrequently seen in youth and early manhood, which may be traced to the vicious and enervating habit of masturbation. The exhausting practice is far more common than is generally supposed; but it is only when carried to an extreme degree that it entails a wasting of the spinal cord and all the accompanying misery which have long been known under the designation of *tabes dorsalis*. The terrible delineations made by Tissot, in his treatise on onanism, are doubtless exaggerated for the purpose of deterring the unwary; and it is a pity they are so; for some imaginative minds are apt to be lured away by the romance of an erotic martyrdom, whilst a more faithful picture might inspire a protecting intimidation.

M. Lallemand, in the course of fourteen years, collected upwards of a hundred and fifty cases, in which all forms of specific diseases—of the brain, the heart, the lungs, the stomach, and of every other organ—presented themselves, every one of which was occasioned by diurnal pollutions. (*Des Pertes Sémiales Involontaires.*)

This propensity has been known to exist in early childhood, long before the testes and vesiculæ seminales had acquired their functional activity, or the moral attributes their restraining influence. But in such cases the habit has been engendered by some local irritation of the sexual organs, such as ascarides in the rectum, incontinence of urine, accumulation of sebaceous matter between the glans penis and the prepuce, etc.

The restoration of the intellect requires far more time than is necessary for the apparent renewal of bodily vigour; and it is when the mental faculties should be most rapidly expanding, that they are most apt to be blighted by the pernicious influence in question. From the age of twelve or fourteen to eighteen or twenty, youths are not unfrequently exposed to a focus of contagion in schools and colleges which masters and tutors, under the illusion of the innocence of their pupils, may repudiate, but which nevertheless exists; and the evidence to the fact is the painful avowal which is readily made by the victims to the temptation. We have, moreover, the testimony of M. Lallemand that "nothing is more common than timid yet educated individuals who complain of debility and seek advice for the acquisition of strength, who, when questioned, admit that they have been guilty of masturbation at an early age."

The habit to which the occurrence of *tabes dorsalis* has been imputed is not peculiar to the male sex; it is sometimes, though much less frequently, practised by the female also, in whom the brain yields more rapidly to its influence. I have seen but one unequivocal case, and in that I was led to think that that peculiar morbid state of the spinal cord which engenders a host of affections, united under the common name of spinal irritation, was the exciting cause; for, on pressure being

* See Dr. Pringle's Observations upon the Artificial Production of Ophthalmia by Inoculation, quoted in Simon's Essay on Inflammation, in Vol. 1 of Holmes's System of Surgery.

made over the lumbar vertebræ, a sensation of intense throbbing and itching was aroused, which provoked the necessity of friction.

The observation of M. Deslandes (*Dictionnaire de Médecine*; Art. "Masturbation"), that out of every twenty cases of leucorrhœa in young females, from fifteen to eighteen result from masturbation, will not, I am sure, be endorsed by medical practitioners in this country.*

Two cases are recorded by Lallemand (vol. iii, p. 65), in which there was a change of anæsthesia from one hand to the other almost daily; and this kind of transference of symptoms from one part to another is not unusual in tabes.

Tabes dorsalis has been known to produce affections of every organ of the body; consequently the disease is remarkable for the diversity of its symptoms, which vary according to the constitution of the patient; and, although its early influence may engender functional disturbance only, the permanent irritation reflected from the spinal cord to the sympathetic system of nerves is adequate to the establishment of structural lesion in any part of the viscera.

On the other hand, it should be borne in mind that there is not an organ in the body which may not be the source of a reflex palsy; so that it becomes a matter of great importance to determine correctly the order of antecedence, lest we render ourselves obnoxious to the rebuke which is implied in Lallemand's averment that he has seen many cases of tabes treated for spinal irritation, by leeches, cauteries, and blisters, with more harm than good. The pallid face, the eye encircled by a livid areola, the furtive glance, the muscular debility and emaciated frame, form collectively a reason for suspecting the existence of onanism; and when paralysis supervenes, in nineteen cases out of twenty, the patient will readily admit the truth of the conjecture.

The prognosis in these cases must obviously vary according to the indications of the extent of atrophy of the spinal cord. If the paralysis be not occasioned by absolute degeneration of the cord, muscular motion may be restored, debility may sooner or later disappear, and the wasted muscles may regain their healthy volume. Such was the happy result of three cases I have referred to; but I suspect the generative power is never thoroughly developed in those individuals who have practised masturbation to a great extent in their youth, or restored to a vigorous condition after it has been lost, from that cause, in manhood, even when the wasting of the spinal marrow has not proceeded to any considerable extent. But when the lumbar portion of the cord is reduced, as it sometimes is, to less than half its natural size, and its structure is considerably indurated, the paralysis is incurable; for the amount of diminution is not an expression of the precise quantity of nervous matter absorbed, seeing that there is in tabes dorsalis, as in induration from chronic myelitis, a deposit of adventitious fibroid connective tissue, which compresses and still further atrophies the contracted nerve-cells and nerve-fibres.

The treatment of tabescent palsy should be influenced by the cause from which it originates. If any local irritant exist, it should be removed; and, in the administration of tonics, it is advisable to refrain from such as have the property of stimulating the generative organs. Accordingly, when the rectum is fretted by the presence of ascarides, an excellent tonic anthelmintic, proposed by Dr. A. T. Thomson, is a solution of chloride of sodium in a strong sulphureous water. A drachm of common salt in half a pint of Harrogate water, taken early every morning, and an enema of the same admi-

nistered every night, will effectually expel the worms in conjunction with the superabundant mucus.

If irritating sebaceous mucus be the cause of irritation, and the prepuce be long, Lallemand has found circumcision to be the best remedy; and Mr. Athol Johnson endorses the recommendation, by the record of a case in which onanism was practised to a very injurious extent by a boy of six years old. The sense of hearing was considerably impaired; and Mr. Johnson, after trying many remedies in vain, removed a portion of the prepuce with benefit. (*Lancet*, April 7th, 1860.) So also in the female, should the pernicious habit be carried to the extent of endangering the intellect, the most promising remedy is excision of the clitoris.

In no bodily disturbance is the value of pain more manifest than in these cases of sclerosis of the spinal cord; but it is rendered conspicuous by its absence. In all other inflammatory conditions of the organ, local pain and muscular contractions are inestimable indications of treatment; and in tabes they would be a warning for the administration of the ergot of rye, iodide of potassium, and belladonna, at the precise period of time when irritation, congestion, and infiltration might possibly be arrested. It would appear that, in many baneful and morbid practices, a sense of shame is the only homage which vice pays to self-control; and that it precludes its victim from the seasonable benefit of that counsel which is the best protection against the retribution of a licentious assuetude.

The patient is fortunate who seeks and follows the physician's advice in time to be rescued from the consequences of absolute disorganisation of the spinal marrow; and in such a case the main indication of treatment is to restore muscular tone, and to subdue nervous susceptibility. This object is best attained by a mild unstimulating nourishment, by gentle tonics, and by protecting the patient as far as it is possible from salacious thoughts and feelings.

In many instances, the mere relinquishment of the enervating habit allows the natural elasticity of the constitution to regain bodily tone; but, when the sapped nervous centres and flagging muscles require the assistance of medicine, the unstimulating preparations of iron, combined, if necessary, with camphor or conium, are the best that can be given. The daily or occasional use of the bath, either tepid or cold, and in such a form as is found to promote the greatest amount of comfort and reaction, is a valuable remedy. The French give considerable faith to the sulphureous waters of Caunterets, Bagnères de Luchon, and Aix in Savoy.

Galvanism, by means of a weak continuous current, may be employed with advantage in restoring activity to the paralysed muscles. If the attempt be made through the influence of the sensitive branches of the spinal nerves, the current should be directed from the part moved by the palsied muscles to the spinal cord; but if the muscles are to be stimulated by the direct action of the galvanic current, it should be made centrifugally from the spinal cord to the muscles themselves. Both plans may be adopted; and Pulvermacher's galvanic band is, perhaps, the most convenient instrument to use.

After restoring to the several organs which may be implicated in the disorder their harmonious action, if debility of the genital organs be found to remain, such aphrodisiacs as the chlorate of potash, dilute phosphoric acid, and brucia, may be given; but it should be carefully borne in mind that temporary stimulants are worse than useless; and, in the category of this class of medicines, cantharides stand prominently forth as the active principle in the so-called Italian lozenges and Venetian pastilles, as well as in those nostrums which are daily advertised in our public journals.

[To be continued.]

* On the continent, and especially in the southern portions of it, sexual abuses are undoubtedly carried on to a frightful extent; and there M. Deslandes' statement may be founded on facts.

THE LARYNGOSCOPE AND ITS CLINICAL APPLICATION.

By THOMAS JAMES WALKER, M.D. (Lond.), etc., Surgeon to the Peterborough Infirmary and Dispensary.

III.—APPEARANCE OF THE NORMAL LARYNX, ETC., AS SEEN IN THE LARYNGOSCOPE.

HAVING described at length the instruments which we require in order to obtain a view of the larynx, and to treat its morbid conditions, I think it well, before giving directions for their practical application, to call to the remembrance of our associates, the different parts of the larynx and pharynx, and to indicate the appearance which these present when viewed in their normal condition by aid of the laryngoscope. In doing this, I do not think it necessary to give a minute account of each fold or fossa observed, nor to discuss the physiological bearing of the various structures; but simply to give such a description as may enable the observer at once to recognise what he sees and to distinguish what is healthy from what is morbid.

The parts of which the larynx-speculum affords us a view are, the back of the tongue, the whole interior of the pharynx, the larynx with all its constituent parts, a part of the interior of the trachea, and a part of the nasal cavities.

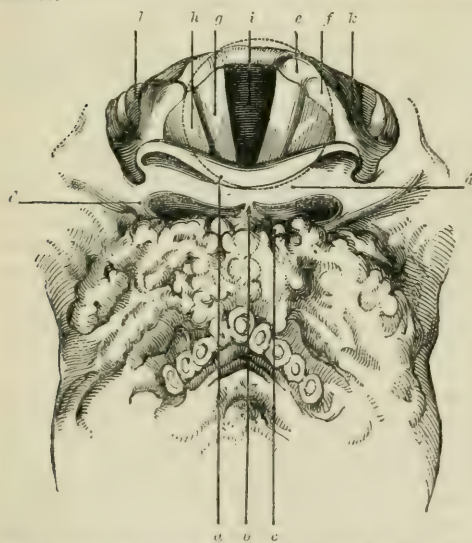


Fig. 6.—The base of the tongue and the larynx, etc. The dotted circle includes as much of the parts as is seen at one time in a moderately sized mirror. The engraving, with the exception of this ring, is taken from Thürk.

On first introducing the instrument into the fauces, we meet with the image of the back of the tongue; and so little are we accustomed, when unaided by the laryngoscope, to examine this part of the body, that the V-shaped group of large circumvallate papillae, and the generally irregular, almost warty, appearance of the surface of the base of the tongue, might be regarded as abnormal by the observer using the speculum for the first time. Even when the rest of the tongue is much furled, the elevations and irregularities at this part of the organ are free from fur, and they then show more distinctly against the surrounding surface. The mirror being advanced a little further towards the back of the pharynx, the epiglottis (*a*) is brought into view; when the tongue

is drawn forward at the same time that the epiglottis remains in its usual position, we see that, stretching across the angle formed between the front of the epiglottis and the surface of the tongue, is the glosso-epiglottic ligament (*b*), which, passing from the centre of the base of the tongue back to the middle line of the front of the epiglottis, leaves on each side of it a deep fossa (*c*), named the vallecula; this groove is separated laterally from that in which the tonsil lies, by a band, more or less marked, passing from the base of the tongue, backwards and outwards, towards the hyoid bone. When the tongue lies quietly at the base of the mouth, its surface at the base and the anterior surface of the epiglottis are in contact, so that the valleculæ, etc., are not seen.

Immediately behind these parts, and always constituting a prominent object in the mirror, is the epiglottis (*ad*). This portion of the larynx differs much in appearance in different subjects; it is at once recognised standing up from the root of the tongue, of a more or less decided yellowish tinge; the yellow colour being more marked at the border, which presents a curved outline, the convexity of the curve being directed forward at the centre, while at the sides it is in the opposite direction. It is in the greater or less degree of these curves, in the more or less pointed character of the centre of its border, in the extent to which it stands up from the tongue, and in the intensity of the yellow tinge, that the epiglottis differs in different individuals. Thus, without being abnormal, the free part of the epiglottis may present the appearance of a thin, yellow, sinuously curved lamina, stretching from side to side of the fauces; or of a pink, thick, almost conical process, standing up at the centre of the back of the tongue. These differences in form appear to be independent of the character of the voice.

The position of the tongue and of the larynx, as well as the action of the muscular fibres connected with the epiglottis, regulates the amount of the surface, anterior or posterior, of the epiglottis which we see. It is most difficult to get a view of the posterior surface; and almost always, in our first examinations of the larynx, it is the anterior surface (*d*), with the frænulum or glosso-epiglottic ligament, which we catch sight of in the mirror; but by asking the patient to utter a high falsetto note, and in some cases without this, we may get a view of the posterior surface. This surface of the epiglottis is smooth; and may be described in general terms as convex from above down, concave from side to side; although Dr. Czerniak has called attention to the fact alluded to in the minute descriptions of some of the old anatomists, that the curve from above downwards varies slightly in its course from the base to the summit of the epiglottis. Dr. Czerniak has also pointed out the existence of a small prominence in the middle line, at the base of this surface; and whether this nodule have the physiological importance which he ascribes to it or not, it is as well that those inspecting the interior of a larynx should be aware that this nodule, when seen more or less developed, indicates nothing pathological.

The epiglottis (*a*) forms the anterior boundary of that part of the laryngeal wall which stands up free in the pharynx; the arytenoid cartilages (*e*), with the aryteno-epiglottidean folds containing the cartilages of Wrisberg (*f*), constituting the remainder of this portion. This part of the larynx lies within the expanded alæ of the thyroid cartilage and the greater cornua of the hyoid bone, which are concealed in the pharyngeal wall; and it is supported on the cricoid cartilage, which lies imbedded in the surrounding tissues, so that only its inner surface can be seen without dissection.

The mucous membrane is reflected off the edge of the epiglottis towards the wall of the pharynx, expanding over the inner surface of the hyoid bone, thyroid cartilage, and pharyngeal muscles; while another fold, pass-

ing at a lower level backwards towards the arytenoid cartilages, and containing between its layers the fibres of the aryteno-epiglottideus muscle and the cartilages of Wrisberg, constitutes the aryteno-epiglottidean ligament.

Now, of these parts, that which next to the epiglottis usually constitutes the most prominent object in the laryngeal image, is the summit of the arytenoid cartilage surmounted by the cartilages of Santorini (*e*).

Even where the epiglottis is but imperfectly raised, these prominences may be seen on either side of the middle line, behind its upper edge; and they will probably be illuminated, even though an unaccustomed operator may not hold the mirror so as to throw into the interior of the larynx sufficient light for the display of the vocal cords.

It is hardly necessary to remind my readers that the arytenoid cartilages have the form of irregular three-sided pyramids, and are placed with their bases on the cricoid cartilages, while on their apices are situated the little cartilages of Santorini. As seen covered by the mucous membrane, these apices and the supplementary cartilages present the appearance of two rounded nodules, situated at the back part of the upper boundary, and constituting the apex of the somewhat triangular upper opening of the larynx. These nodules are in contact or slightly separated, according to the active or passive state of the vocal cords; the mucous membrane covering the prominences is smooth and pink; the cartilage, however, in some cases, shining through, gives it a yellow tinge, and the peculiar form of the conical apex curving backwards and outwards, clearly shows itself. The position of the mirror being shifted a little, or the epiglottis being carried more forward, the rounded, smooth, pink, aryteno-epiglottidean folds, are seen stretching outwards and forwards (upwards in the image) to the margin of the epiglottis, and forming the two sides of the triangular opening of the larynx. The cartilages of Wrisberg (*f*), lying in the edge of these folds, immediately in front of the arytenoid cartilages, constitute, in some individuals, prominences no less distinct than those formed by the latter, while in others they are scarcely observable.

Although the parts situated external to this upper boundary are to be noticed and require description, it is to those situated deep within the space it includes, to the true and false vocal cords and the laryngeal pouches that our attention is usually directed. Of these objects, the most prominent and the most important are the true vocal cords (*g*). They are seen as two tense white bands, about a line in width, stretching from before backwards, seldom seen at first in their whole length; the anterior angle, formed where they meet at their insertion into the lower part of the angle of the thyroid cartilage, being demonstrable only when the conditions are most favourable for the examination of the larynx.

If the patient be breathing quietly when the vocal cords come into view, they are seen to diverge, as they pass backwards to their insertion into the base of the arytenoid cartilages, so as to be separated posteriorly by an interval of half an inch or so. If the larynx be half closed, the vocal cord is seen to terminate in the prominent angle at the base of the arytenoid cartilage called the vocal process; and these vocal processes, in this state of the larynx, converging backwards, give to the rima glottidis the form of an elongated irregular lozenge. Our attention is, however, usually arrested by the vocal cords, when they are made to approach one another by the patient's uttering a vowel sound. Being thus made tense, they are thrown well out into the middle line, where there is, when the mirror is rightly held, the most brilliant light. Under these circumstances, they appear very distinct, of a bright white colour, and separated from one another by a narrow chink. If our patient is able to utter a prolonged high falsetto note, he can, by so doing, display his vocal cords very clearly in their whole

length, parallel, and separated only by a scarcely perceptible fissure at their posterior part.

The mucous membrane covering the vocal cords is reflected from their under surface on to the cricoid cartilage and trachea; and, of course, neither the under surface of the cords, nor the part of the cricoid immediately below them, can be seen in the mirror held in the pharynx as I have described; from the upper surface of the cords, the mucous membrane is reflected on to the laryngeal wall, and about a line above them it forms a fold on either side called the false vocal cords (*h*); these projecting from the wall of the larynx but a short distance, still catch the light so as to be prominent objects in the laryngoscope; the mucous membrane is of the same pink hue at these folds as over the rest of the larynx, the small proportion of fibrous tissue contained between their layers not showing through; the sulcus existing between the true and false vocal cords, called the laryngeal sinus or ventricle, remains dark and in shadow in the laryngoscopic image, and is thus recognised between the bright fold of the false vocal cord above, and the glistening, tense, almost white band, the true vocal cord, below.

In most cases where we get a good view of the larynx, we may, by a little dexterous management of the mirror, shoot a ray of light down through the rima glottidis (*i*) into the trachea; so as to render the mucous membrane lining it visible, with the cricoid cartilage and the tracheal rings showing white and prominent through the translucent membrane. Very rarely the whole length of the trachea is thus illuminated, and the openings of the bronchial tubes into which it divides may be seen. By shifting the mirror, different parts of the tracheal wall may be seen, and ulcers, or other pathological affections, may be discovered.

The great freedom and rapidity of motion possessed by the chordæ vocales, cannot fail to strike the observer on his first obtaining a view of the interior of the larynx; the mobility is best seen when the person subjected to examination forces a laugh or cough, or utters a succession of vowel-sounds.

The false vocal cords do not possess any amount of independent action, but they approximate and diverge slightly, according as the general shape of the larynx is altered. Thus, in uttering a high falsetto note, the whole larynx is compressed from side to side, elongated from before backwards, and, of course, the false cords are approximated; so also, in the act of retching, the base of the tongue being depressed, the epiglottis stands very prominently up, and the sides of the larynx appear to approximate; in swallowing, it is probable that the false cords are also approximated, while, according to Czermak, the small fissure left between them is closed by the little nodule described as existing at the back of the epiglottis. These papers being, however, meant merely as a guide to the practical application of the larynx, physiological questions are avoided, except when they bear directly on the use of the speculum.

I have already stated that the walls of the larynx, within which are situated the parts just described, stand up free in the pharynx. On either side of these, therefore, is a sulcus bounded internally by the outer surface of the arytenoid cartilages and aryteno-epiglottidean ligaments (*k*), externally by the wall of the pharynx (*l*); in the outer wall of this groove, shining through the mucous membrane, and forming a more or less decided whitish prominence, may be seen the greater cornu of the hyoid bone; this fossa is not unfrequently the site in which foreign bodies, as small pieces of bone, etc., lodge and cause much annoyance.

At the back of the arytenoid cartilages, the mucous membrane is continuous with that of the pharynx; and here is situated the opening of the œsophagus; but of this opening nothing is seen, it being, in the normal state, so firmly closed that the mucous membrane

appears to be reflected from the base of the arytenoid cartilage on to the posterior wall of the pharynx.

There still remains to be described the appearance which the part of the pharynx situated above the level of the soft palate presents when, the face of the mirror being turned upwards, the posterior nares, orifices of the Eustachian tubes, etc., are seen reflected in it.

The practice of rhinoscopy, as the examination of these parts has been termed, is attended with many more difficulties than the examination of the larynx; and, in an ordinary case, it is hardly possible to get so full a display of the parts as that given in the accompanying engraving, which is an accurate representation of the appearance which they presented in a case where, the soft palate being completely divided, special facilities for their observation existed. I have, however, drawn the palate as though undivided and raised by a spatula; since, the bright end of the palate-spatula (*f*) being one of the first of the objects reflected in the mirror which catches the eye of the observer, a clear conception of its relation to the surrounding parts will assist him in adjusting the mirror so as to bring these into view.

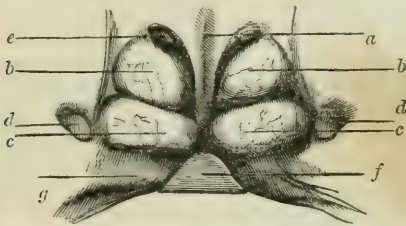


Fig. 7.—View of the posterior nares, the eustachian tubes, etc., as seen during life in the laryngoscope.

It is quite the upper part of the pharynx, with the expanded portion of the septum (*a*) formed by the base of the vomer, the two middle spongy bones (*bb*), and the nasal cavity between them, which, when the mirror is held in the middle of the pharynx, are first and most readily seen. It is more difficult to get a good view of the lower spongy bones (*cc*), and of the lower portion of the vomer, which parts are in shade from the prominence of the soft palate. The openings of the Eustachian tubes (*dd*) can be seen by sloping the mirror to one or other side.

The idea which we should form of the appearance of these parts from an examination in the recent state after death, or still more the idea formed from a knowledge of the skeleton in this region, is found to be very inadequate when we examine the nares during life.

The posterior edge of the septum narium (*a*) is seen now as a brightly illuminated pink column gradually tapering from the roof of the nostril to the floor, the lower portion receding between the prominent expansions of mucous membrane over the lower turbinated bones. At its upper and widest part, the septum is slightly grooved in the middle line; and here the mucous membrane appears whitish, from the vomer showing through. On either side of the septum are seen the rounded prominences of mucous membrane (*bb*) which project from the middle turbinated bones; they have a smooth shining surface, with a bluish tinge; and minute vessels are seen ramifying over them. The two are not absolutely symmetrical in size or form; they almost completely fill the upper part of the nares, and project back to a level with the border of the septum. Situated below these, and so close upon them that no view of the interior of the middle meatus is obtained, are the corresponding expansions over the lower spongy bones (*cc*); they are more flattened from above downwards, elongated laterally; they present a similar smooth rounded surface, with a slightly blue tinge, to that already

described on the middle bones; they project further back into the pharynx than these. Situated more deeply in the superior meatus may be sometimes seen the small fold of mucous membrane corresponding to the superior ethmoidal spongy bone (*e*). These parts occupy almost completely the space of the posterior nares; but between them and the septum and floor of the nose are seen the dark spaces into which they divide the nasal cavity. The direction in which the light is thrown and the position of the mirror prevent our having a direct view into these, and cause the meatuses to appear in the engraving rather smaller than they actually are.

Situated in the lateral wall of the pharynx, immediately below and to the outer side of the attached edge of the lower turbinated processes, is, on either side, the orifice of the Eustachian tube (*dd*); these are irregular oval orifices, looking downwards and inwards, measuring, in their longest diameter, from two to three lines; the upper and posterior edge of the trumpet shaped opening of the Eustachian canal being bevelled off, we see the inner surface of the anterior lip, buried in the pharyngeal wall, apparently of a lighter colour than the surrounding mucous membrane, and having a yellow tinge communicated by the cartilage beneath it. In its course backwards and inwards to the ear, the tube causes a rounded prominence of the mucous membrane, as represented in the drawing. From the side of the pharynx at this point, the mucous membrane is reflected on to the soft palate; and a prominent fold exists at the lower edge of the orifice of the Eustachian tube, beneath which lie the fibres of the levator palati muscle. Of the objects I have mentioned, not only those situated at the uppermost part of the pharynx, but also the orifices of the Eustachian tubes, may be easily illuminated in any case where we find a palate capable of tolerating the spatula necessary to raise it; the mirror having its face directed laterally, to throw the light on to the parts situated out of the middle line. The lower part of the vomer and lower turbinated bone are, however, thrown into shadow by the soft palate (*g*) and the end of the spatula (*f*) with which we raise the uvula and draw the velum forward.

Of course, by using a small mirror and turning it to one side or the other, we may get a view of any part of the pharyngeal wall, and thus detect ulcers, morbid growths, and other abnormal conditions; but there is nothing more seen in the normal state of the parts which requires description.

[To be continued.]

THE CERVIX UTERI IN PREGNANCY. Dr. Matthews Duncan exhibited, at the Edinburgh Medico-Chirurgical Society, a dissection of the cervix uteri of a woman who died in the eighth month of pregnancy. She came into the Royal Infirmary labouring under typhus fever, and was under the care of Dr. Warburton Begbie. The length of the cervix was about an inch. Its external extremity, marked by an irregular row of Nabothian follicles, could be easily seen; and its internal extremity, continuous with the rapidly expanding smooth internal surface of the body of the uterus, was also distinct. The whole cervix was hypertrophied and softened; and this remark applied also to the arbor vite, of which the anterior and posterior columns were strongly projected. Dr. H. S. Wilson had, at his request, examined the internal surface of the body of the uterus microscopically, after detaching the chorion from it; and he had found no denudation of the muscular fibres, but the surface formed of a layer, detachable in an early stage of putridity, composed of decidual structures, especially of fusiform nucleated cells, which seemed to be less fusiform in shape and rounder the nearer they were to the chorion. (*Edin. Med. Journal.*)

Transactions of Branches.

EAST ANGLIAN BRANCH.

CASE OF ENCEPHALOID CANCER OF THE BLADDER: WITH REMARKS ON THE SEMEIOTIC VALUE AND TREATMENT OF HÆMATURIA.

By W. H. RANKING, M.D.Cantab., F.R.C.P.L., Physician
to the Norfolk and Norwich Hospital.

[Read at Yarmouth, June 26th, 1863.]

THE subject of the following case, which has recently proved fatal in the Norfolk and Norwich Hospital, first came under my notice as a private patient in consultation with Mr. Allen of Norwich. He was at that time 58 years of age, and lived in an ill-ventilated and low part of the city. He did not, however, appear to suffer from the unfavourable hygienic conditions by which he was surrounded; but with the exception of occasional rheumatic attacks, he had never had any serious illness, until the commencement of the formidable symptoms, which eventually proved fatal. Of these he was suddenly made aware, by finding that on attempting to empty his bladder, he passed a large quantity of blood. On this, he immediately placed himself under medical care, and it was after the failure of a judicious line of treatment by Mr. Allen, that I was requested to see him.

On visiting him, I inquired minutely into his antecedents, more especially with the view of ascertaining the source of the hæmorrhage, whether it was from the kidneys or from the bladder. To elucidate this important point, careful inquiries were made as to the prior existence of lumbar pain, and as to the fact of gravel or larger concretions having or not having been passed. I also inspected the urine as to the blood being intimately mixed with it, or whether the blood was passing either *per se* or in large quantities accompanying the discharge of urine rather than mixed with it. The discovery that the blood was passed under the latter conditions led me to the diagnosis, which was verified after death, of malignant disease of the bladder.

At this stage of the disease, as no suspension of the hæmorrhage took place, the man was made an in-patient in the Norfolk and Norwich Hospital, in October 1862. On admission, he was almost in a state of collapse, blanched to the greatest degree, and passing large quantities of dark blood, partly fluid, partly in clots, the passage of which caused much painful straining. On some occasions the entire discharge was fluid blood, by which the bladder had become so distended as to call for its evacuation. On this occasion also, as well as his fainting condition would allow, I obtained from him a confirmation of his former history, and when reaction permitted, requested Mr. Williams to explore the bladder. The result of this operation was, that there was no stone, but simply a thickened and pulpy feel of the coats of the bladder as imparted by the instrument. This was, of course, another link in the chain of evidence as to the real nature of the disease, and a microscopic examination of the blood was the only further step necessary. This was also obligingly done by Mr. Williams, with the result of finding cancer-cells, and thus settling the question definitively.

Any prospect of curing or even materially alleviating the symptoms of the patient being now regarded as distant, it still became a matter of urgency to arrest the bleeding, which was rapidly exhausting his vital powers; but as hitherto, all the medicines usually relied upon in such cases, as gallic acid, matico, turpentine, and acetate of lead, etc., had failed, this was a result not very easy to be accomplished. I had, however, several times and in serious hæmorrhages from other sources, as the lungs, bowels, and uterus, seen the good effects of a secret

remedy known as Ruspini's styptic, and therefore determined upon its employment. Its effect in moderating the hæmorrhage was beyond expectation, three or four doses sufficing to make a marked change in the appearance of the urine, so that in three or four days all sanguineous colouration had disappeared. This might be thought by some to be a sequence, not a result; but further experience of the case proved cause and effect much more clearly than we are often able to establish with other medicines. In fact, from the ridiculously extravagant price of this remedy, it became expedient in a charitable institution to dispense with its use as speedily as possible, and it was accordingly suspended. But no sooner was this done, and gallic acid resumed, than copious hæmorrhage again appeared, and the styptic was a second time resorted to. This unlucky coincidence occurred again and again, till the persistence of the medicine was determined on, and with such good results in the mere absence of the sanguineous drain, that the patient gained so great an amount of strength as to induce him to return home.

After this period, he made several appearances at the hospital on the out-patients' days, but each time exhibiting a further increase of the exhaustion and cachectic pallor of the skin. As a matter of charity, therefore, he was readmitted on April 4th, in a state of great debility, but with the additional symptom of severe pubic pain, extending to the left testis and down the inner part of the left thigh. His bladder was now very irritable, acting painfully every hour; his urine containing much albumen and an abundance of lithates, but no blood. The pubic region was so tender at this time that he could scarcely bear the slightest pressure, but it was easy to discover the presence of a rounded tumour extending nearly to the umbilicus, and perfectly immovable. This tumour gradually enlarged, and after a few days of increased suffering, he appeared to sink from exhaustion, and died twenty-four days after readmission; a suspension of the urinary secretion apparently having preceded the fatal termination.

The autopsy revealed an emaciated frame, with a manifest prominence of the lower abdominal region. The lungs and heart were healthy; the liver was of normal size, and on its diaphragmatic surface exhibited a large mass of encephaloid cancer, white and concave; the rest of the organ was apparently healthy. Both kidneys were large and deeply congested, and the left had its pelvis and ureter largely dilated and distended with urine. The lower part of the abdomen was occupied by a large tumour of the size of a child's head, evidently the bladder converted into a solid mass, by the occupation of its left wall by encephaloid cancer, which had so much developed itself internally as nearly to obliterate the vesical cavity. The iliac glands were also cancerous, and the vesiculæ seminales and adjacent parts were agglutinated together into a large supplementary tumour. The whole mass weighed three pounds, and was made up of soft medullary cancer, much of it in a broken down condition. The explanation of the enormously dilated ureter was found in the obstruction of its vesical orifice in the immense cancerous mass which had specially invaded that part of the organ. Under the microscope were seen the compound cells of malignant disease with abundant cancer-cell nuclei, but no fibres.

This completes the description of a case which represents one of the most painful diseases which medical experience presents to us. But the lesson offered by it is a poor one, if our attention be satisfied by the bare history of the poor patient's inevitable fate, and the ocular evidence of what had baffled all medical efforts at cure, and well nigh at relief also. Feeling this, if I have not already too long occupied your time, I would beg your attention to a few remarks on the diagnostic value of the main symptom, urinary hæmorrhage, and on the best mode of arresting that symptom.

When the case was first seen, it was naturally enough diagnosed roughly as *hæmaturia*; this term, however, is only descriptive of one objective symptom, not of the lesion from which the bleeding arises. In all these cases, therefore, it is necessary to turn over in our minds all the sources of bleeding from the urinary passages, not so much perhaps with reference to the treatment of the particular symptom, hæmorrhage, but for the purpose of arriving at data for a correct prognosis, on which a medical reputation may depend in fatal cases, as much as on successful treatment in curable ones. In following up this inquiry, it is practically perhaps most convenient to put questions first, having reference to the possible origin of the hæmorrhage in the kidney. We must ascertain, for instance, whether the patient have ever had gout, or whether his urine have been habitually highly coloured and charged with deposit, or more particularly if he have passed calculous concretions. If we elicit any affirmative evidence of this kind, associated with old standing lumbar pain, or with the history of an attack of nephritic colic, we may with some propriety regard the kidneys as the seat of the hæmorrhage, and this view will be confirmed, if the blood be intimately mixed with the urine instead of being passed *per se*, or in clots.

If, however, on the other hand, there be no precise history of lumbar pain, but only complaints of pain or uneasiness confined to the pelvic region; if the blood be passed pure and sometimes unmixed with urine, and more particularly attended with straining for the passage of clots, we shall be justified in suspecting the bladder rather than any other portion of the urinary tract.

But, having thus ascertained that the blood comes from the bladder, we have still the further inquiry to make, On what condition of the bladder does it depend? Is it caused mechanically by the wounding of the coats of the bladder by some foreign body, as a rough oxalate stone, for instance, or does it arise from some malignant disease of the bladder itself? This is an important question, for upon its solution depends not only our prognosis, but our treatment. In the case of a calculus, relief is obtainable by surgical measures; but, in the case of malignant disease of the bladder, surgical explorations are injurious, and death may be looked upon as ultimately inevitable. To make this diagnosis we have two sources of information to rely upon; that afforded by the general symptoms, and that of tactile evidence. For instance, in hæmorrhage from calculus, the bleeding is seldom copious, is only an occasional phenomenon, following perhaps upon some accidental cause, as riding on horseback, or a sudden jolt or fall. The hæmorrhage on the contrary, when arising from fungoid or cancerous disease is copious, passed pure as blood, and is accompanied by coagula; and if checked, as in the present case, will return at close intervals. As in this case also, the peculiarly cachectic aspect of the patient will suggest the true nature of the disease.

Respecting the treatment of hæmaturia, I shall not detain you long. I need only say that where the loss of blood is slight, and apparently caused by congestion of the kidneys only, as after scarlatina, it is to be met by such means as are likely to remove the congestion, as warm baths, medicinal sudorifics, and in some cases by cupping over the loins; but where the loss of blood by the urinary passages is in itself a formidable symptom, irrespective of its proximate cause, we shall find ourselves called upon to restrain it, at the urgent solicitation of the patient, if not at the indication of strict medical science. The drugs usually prescribed for this purpose are gallic acid in ten to twenty-grain doses, matice, and turpentine in from five to twenty drops. Each and all of these may succeed in individual cases of medium severity; but it will sometimes be found, where the loss of blood is more profuse, that the hæmorrhage, whether from the lungs, from the stomach, or kidneys, or still more so

from a bleeding cancer of an internal organ as in our case, none of these remedies can be depended upon; and yet this profuse bleeding will be occasionally under the command of a medicine before mentioned, Ruspi's styptic.

No friend to quackery in any shape, as you know, and indisposed as I am to the use of any medicine which is not openly made known to the profession, I confess I have thought it my duty, where life was in the scale, to exhibit this preparation in various alarming hæmorrhages. Such has been the case with the subject of this paper, who has repeatedly had all traces of blood vanish from the urine after a few doses of it, to see the symptom as surely return when it was left off. I think you will allow this to be a sufficient justification for its exhibition.

A few more words with regard to this poor patient's end. As I have said, he left the hospital to all appearance with the complete subsidence of the hæmorrhage, the symptom which had most threatened his life. But the truce was fallacious; the malignant disease no longer bled, but it developed itself in the walls of the bladder with rapidity, until a tumour which reached the umbilicus was formed in the course of a few weeks, blocking up the ureters, and causing him to die much in the mode which is seen in fatal retention of urine.

TWO CASES OF EXCISION OF THE KNEE-JOINT IN CHILDREN.

By T. W. CROSSE, Esq., F.R.C.S., Norwich.

[Read at Yarmouth, June 26th, 1863.]

In submitting the following cases to the notice of this meeting, I have no intention of entering upon the various disputed points which are involved in the subject of excision of the knee-joint. I do not propose to discuss the merits of "incisions," "saws," or "splints." My object is simply to record what has recently come under my own notice; to give you the history of my patients; to exhibit to you the parts that have been removed; and to tell you the results of my doings, as far as they go.

I may remind you that a few years since this proceeding, as far as regards children, was looked upon with some suspicion, from a fear that the patient would derive but little ultimate benefit, through want of parity in the subsequent development of the two limbs; and in 1859, my friend Mr. Oliver Pemberton, of Birmingham, called the attention of the profession to this point, and detailed, amongst others, two cases, in both of which there was shortening to the extent of five inches, six years after the operation. On reflection, however, the fact became more and more evident, that whatever the disproportion ultimately existing between the two limbs might be, yet that resection left the patient in a less mutilated condition, and certainly ensured upon recovery far greater comfort and facility in progression, than amputation. Writing to me on this point, Mr. Fergusson says, "In amputation you have mutilation to the extent of the leg and half the thigh. In excision you retain both leg and thigh, with the abstraction of a couple of inches of bone. Supposing the operation done within the first six years of life, and allowing for as much arrest of development as any theorist could name, allowing that the wound had healed and that the sole of the foot was on a level with the knee of the opposite limb, or even higher, the leg would still be better than a stump left after amputation."

With a belief in the force and truth of these observations, I had recourse to the operation in the two cases which I will now relate to you.

CASE 1. *Anchyllosis of the Right Knee-Joint: Forcible Extension twice made, with Division of the Ham-String Tendons: Excision: Recovery.* M. F., aged 8, was admitted into the Norfolk and Norwich Hospital on July

17th, 1858. Two years previously, when sliding, she fell upon the right knee, and had been lame ever since. The joint was somewhat enlarged but not tender, and there was partial movement in it; the leg was considerably bent upon the thigh, and any attempt to straighten it gave great pain. The patella appeared to be ankylosed to the external condyle. She was a strumous looking child, but had generally enjoyed good health.

On July 21st, I forcibly extended the joint under chloroform, and brought it into a much straighter position. There did not appear to be very many, nor any very firm adhesions broken through by the force which was used. The head of the tibia, however, appeared much displaced, and drawn backwards. The ham-string tendons were not divided. The limb was firmly bandaged to a splint placed at the back of the leg; no disturbance of the joint or system ensued, and whilst she remained in the hospital the limb seemed gradually to become straighter. She was made an out-patient in the following November, when she was able to walk a little better, though still very lame; and the knee was very tender to the touch.

On February 12th, 1859, she was readmitted. The knee was enlarged and very tender, and the relative positions of the patella, tibia, and condyles of femur remained the same. The limb had again become flexed and firmly fixed in the same position (nearly at right angles) as it was on the former occasion. Forcible extension was again resorted to, and division of the ham-string tendons effected. After this she improved considerably, and in January 1861, I find the following note in my case-book: "I see this patient from time to time; she is able to get her heel down upon the ground and to walk about, although very lame. The knee-joint remains stiff."

In May 1862, she was again readmitted, having within the last two months become much more lame. There was no history of any injury or accident to account for the accession of pain and lameness; her general health appeared to be pretty good. The leg was bent at right angles to the thigh, and could neither be flexed nor extended. The knee-joint was not swollen nor very tender on pressure. She could only walk on crutches.

On June 13th, I resected the joint, making a single straight incision across the front of it, just below the patella; and when I had sufficiently cleared away the soft structures from the front of the femur and the head of the tibia, I sawed out a wedge-shaped portion of bone, cutting first through the femur and then through the tibia; a second slice having been removed from the latter, the surfaces were adjusted and came well into apposition. Only two or three vessels required ligature at the time, but a few hours afterwards I had to secure no less than ten bleeding points. The wound was closed with sutures, and the limb placed in a McIntyre's splint, well padded, with an additional long, wooden, interrupted splint along the outer side, from the hip to the heel.

On examining and measuring the parts removed, it appeared that about an inch and a half of the lower end of the femur and an inch of the head of the tibia had been taken away. You will see by the macerated and dried specimen on the table, that the entire epiphysis has been included in that portion which belongs to the femur; and also that there is firm bony ankylosis between the patella and external condyle, and between the head of the tibia and the condyles of the femur, the former being in a line quite at right angles to the latter: there does not appear to be any displacement of the tibia backwards as was thought, and the cancellous texture generally appears to be firm and healthy. There was no trace of synovial disease.

Perfect rest was carefully ensured for three weeks, at the expiration of which time the splint was changed. Consolidation took place very slowly, but the patient's health did not appear in any way to suffer by the con-

finement, although she was a feeble and delicate child; and after a while, with cod-liver oil and good diet, she greatly improved and gained flesh.

She left the hospital on November 15th, able to walk without stick or crutch, and placing the sole of the foot firmly and flat upon the ground. At the time of her discharge, there was a small fistulous opening on the outer side of the leg near the wound.

I last saw her about six weeks since, when her condition had still further improved, and the union of the bones was firm and solid. The photographs on the table admirably illustrate her condition before and after the operation.

CASE II. *Disease of the Knee-Joint, with Incomplete Ankylosis: Excision.* W. G., aged 7, came under my care at the Jenny Lind Infirmary, in April 1861, with an affection of the left knee-joint. A month previously he had received an injury, and on admission, the joint was swollen and tender; its movements were impaired and painful; and there was also slight contraction of the leg.

Under appropriate treatment he improved, and the limb became straighter. He was readmitted several times, always getting worse when out of the hospital, and improving very much when an inmate of it. About two months since an abscess formed in the ham, which slowly healed; for this he was brought to me, and, deeming it a favourable case for excision of the joint, I took him into the Norfolk and Norwich Hospital last April. The following was then the condition of the limb.

The knee was fixed, or nearly so, at an obtuse angle, and the patella was firmly ankylosed to the external condyle of the femur. There was some motion in the joint, which was not enlarged nor tender on pressure; but he suffered very acute pain at night. In standing, he rested on the ends of the metatarsal bones, and his heel was two inches from the ground. The head of the tibia was somewhat displaced backwards, giving the limb a twisted appearance. He generally walked with a crutch, without which his method of progression was extremely limited and awkward. The cast now presented to you, illustrates the condition just detailed.

On June 12th, I made a straight incision across the front of the joint, and removed a wedge-shaped portion of bone, which comprised two inches of the lower end of the femur, and about an inch and a half of the tibia. Only two vessels required a ligature, and the parts came very well into apposition when adjusted and fixed in a well padded McIntyre's splint. As you will see by the specimen, there is very little disease of any sort about the joint; the cartilages appear very nearly absorbed, and there is a small carious cavity in the head of the tibia. There were firm fibrous adhesions existing, but most of these were broken down at the time of the operation, when the limb was unintentionally flexed rather forcibly by an assistant. The external articulating surface of the head of the tibia is quite worn away, and bevelled off, and the space between it and the external condyle filled up by a mass of fibrous and fatty textures, most of which I have since cut away. The cancellous structure mostly appears firm and hard, and the patella is firmly adherent to the external condyle.

Up to the present time, this case has progressed satisfactorily. No great constitutional disturbance has taken place; the limb lies easy and straight in its splint, and the parts appear to be consolidating, whilst the external wound is slowly healing by granulation.

At some future time, when this Branch honours the city of Norwich by holding its annual meeting there, I hope to introduce both these patients again, personally, to the members.

P.S. Aug. 3rd. This patient has made a good recovery, and now gets about on crutches. A starch splint has been applied to the limb. The heel comes down well to the ground; and he can bear some weight upon it.

British Medical Journal.

SATURDAY, AUGUST 22ND, 1863.

THE PUFF PROFESSIONAL.

WE some weeks ago referred to the injury done to the public and to the profession through the unreasonable laudation or untimely puff given to a supposed remedy for small-pox. An honourable member of the profession, contrary to all medical logic and sane medical observation, drew violent conclusions from antecedents which in no kind of way justified them, and then rushed into the public prints, exciting and inflating the anticipations of the public, and causing thereby serious annoyance to the profession, as well as eventual grievous disappointment to the expectant public. Surely we, as professional men, may ask: If the remedy were really worth a farthing, why need it have been puffed in the public journals? Why was it not enough that its praises should be sung and its real uses regularly developed in the professional journals, so that its value might be tested by the gauge of time and a more extended experience? We refer to this case, because those who need it, and they are not a few, may learn a valuable lesson from the tale. This very remedy, this sarracenia, the dead-shot cure of small-pox, "of which every country gentleman ought to keep a supply", as we were told *per* the *Times*, tried and tested in a calm and philosophical way in the Small-pox Hospital by Mr. Marson, is pronounced to be utterly valueless.

Here, then, we have, on the one hand, a gentleman blowing the trumpet of sarracenia in the *Times* on manifestly (by his own showing) the most defective data; and then, again, we have Mr. Marson, one of our best authorities on small-pox, after careful and manifestly fitting investigation, telling us that the sarracenia is as valuable in its effects as a decoction of dried cabbage-leaves; and, more than this, we have the *Lancet* actually copying into its pages, from the columns of the *Times*, the puff on sarracenia.

Well, and now comes another strange and incongruous production—

"Desinit in piscem, mulier formosa superne";

and it is called *The New Treatment of Epilepsy*. A printed pamphlet of eight pages lies before us, marked "private"; and it announces "a new curative system". For whose benefit it was so printed our readers must themselves guess. But, as so great a boon should not be hid under a bushel, we suppose we may fairly tell our readers all about it. The pamphlet is signed by John Chapman, M.D.; and to it is appended a note from Dr. Druitt.

Dr. Chapman pretends to a great discovery in the treatment of epilepsy. Well, if he have made a real discovery, why need he publish a pamphlet marked "private" on the subject? And why, again we ask, need a letter be appended from a friend, in the form of a certificate of the truth of the discovery? Surely, if Dr. Chapman's facts be true, the announcement needs not the certificate of a friend. We are satisfied that Dr. Druitt never for a moment contemplated that such a note as is his on the subject would have been thus put in print by Dr. Chapman. It appears to us, indeed, very much like the kind of note which one gives to a troublesome friend to get rid of him. "Dr. Druitt", Dr. Chapman writes, "has been kind enough to express himself concerning the results which he has seen of the practice, based on the discovery above mentioned, as follows:—

"DEAR DR. CHAPMAN,—I must confess that I was agreeably surprised at the results of your treatment of paralysed and epileptic patients. . . . I carefully interrogated the five patients whom you allowed me to see on the 17th inst., after you had read me their histories, and explained the treatment you had adopted. In each case I was satisfied from the testimony of the patient, or from that of the wife or nurse who accompanied him, that your report of the previous history was quite correct; and there was no mistaking the testimony of the patients, that the results of treatment had been most beneficial. I learned from all the patients that the treatment had made them 'more comfortable'. . . . The results which I saw were partial restoration of power in a case of progressive wasting palsy, and diminution of the number and severity of epileptic fits, so much as almost to warrant the hope of a cure; and the removal of some distressing symptoms, such as inability to hold the water: which last result is a most important and beneficial one, even if it stands alone.

"Believe me, etc.,

"R. DRUITT."

We need not stop to remark upon the value of this note. As we have said, we are sure that a scientific observer like Dr. Druitt does not really settle questions of high physiological and pathological importance in such a slipshod fashion as this. Dr. Druitt knows better than to bring such important things as these before the profession on the mere *viva voce* testimony of five patients whom he sees once on a given day; and, besides, Dr. Druitt has in his own experience, no doubt (like all the rest of the world), met with cases of epilepsy in which the number and severity of the fits have been diminished by treatment, long before he heard of, or passed judgment on, this new (as it is called) practice of Dr. Chapman. Clearly, this letter was never meant for publication; so we will say no more about it. But we must confess a degree of surprise to see this "new treatment of epilepsy" paraded in one of our medical journals, and in a way which has naturally led to its glories being translated thence into the daily press; though, curiously enough, the editor of the medical journal, who heads it "New Treatment," etc., actually calls it—viz., the alternating application of heat and cold—"an old remedy in itself; but

the author may claim it as a new one in the intention, and method, and results."

Now, we ask the profession, is this the way in which great discoveries should be introduced to the world? Have we any right or sense in going to Parliament, and in asking for some method of regulating physic and its practice by Act of Parliament, so long as we carry on our scientific business in this way? A new method of cure of a hitherto admittedly incurable disease, announced in a pamphlet published for private circulation; a note from a friend of the discoverer, certifying to the efficacy of the wonderful remedy, the certificate being founded upon evidence of the very weakest character, in a scientific point of view not worth a second thought; and then, finally, a notice in a medical journal of "a new treatment of epilepsy", which finds its way, in due course of time, into the public prints, and (which, of course, was the last thing intended by the writers) comes in this way to the ears of the nervous and epileptic portions of humanity, who will, inflated with hope, only too greedily accept as positively true what is so far a simple announcement to the profession.

ST. THOMAS'S RESTING-PLACE.

THE governors of St. Thomas's Hospital have at last fixed on a site for the elevation of their new hospital, as will be seen from the following extract from the report of the Metropolitan Board of Works:

"The report of the Thames Embankment Committee was then brought up, and stated that Mr. Baggallay, the treasurer of St. Thomas's Hospital, proposed to form a suitable site for the new hospital on the ground of the southern embankment, nearly opposite the Houses of Parliament. The committee had entered into an agreement with the authorities of St. Thomas's Hospital, subject to the approval of the Board. The terms were that the land required, amounting to about eight acres and a half, should be sold to the hospital for the sum of £95,000, the Board of Works to make the embankment and level the ground by the 31st of December, 1865. After a long discussion, the report was adopted, and the chairman was authorised to communicate to Mr. Baggallay that his offer was accepted."

This is the bargain which we recently communicated to our readers. As the affair is concluded, it is useless further to speculate upon its advantages or disadvantages. It is impossible, however, not to express a regret, that Bethlehem was not the site. Of course, the governors of St. Thomas's have nothing to do with the welfare of the lunatics in Bethlehem; but as philanthropy is an universal sentiment, the public in general will (we have no doubt) lament over the glorious opportunity lost of doing two blessed deeds at one throw—of sending Bethlehem into the country, and fixing St. Thomas's on Bethlehem's present site. It is hard to suggest one valid objection to the excellence of the Bethlehem site; and easy, if the voice of general hu-

manity were alone heard in the work of charity, to suggest a score of powerful ones in favour of it.

However, if this Stangate site is to be the one, we must now content ourselves with asking, When will the new hospital rise to life and action? Will it be in five, ten, or twenty years? Will any of the present medical officers live to exercise their functions within its walls? We sincerely hope that they all may. But hope often makes the heart sick; and here we have, indeed, a long deferred hope to practise. The very ground on which to lay the foundation-stone of Stangate has yet to be made. The Board of Works, it is true, promise to have the embankment ready and the ground level by the end of next December two years! If they keep their promise, therefore, the present or future governors of St. Thomas's may lay their foundation-stone in 1866. In the meantime, during the next two years and a half, there will be a grand opportunity for architects and sanitarians to exercise their inventive faculties in the discovery of the most perfect plan for the construction of an elegant and modernised hospital—a plan which shall not disgrace, but rather set off, the building, on the other side of the Thames, and be perfect in its sanitary arrangements. We must add, however, that one great functionary may yet intervene in the bargain; viz., the Lord Chancellor. He is a court of appeal; and can put his veto on the bargain, if he consider cause sufficient be shown against this Stangate scheme.

A daily paper makes a few restrictive remarks worthy of note; they certainly read somewhat like the invention of the enemy. But, nevertheless, it is sometimes a good word that our enemies tell us. "*Fas est et ab hoste doceri.*"

"If all goes well—if our main drainage scheme is a complete success—if none of the sewage discharged into the Thames at Barking Creek is ever brought back to Westminster by the action of the tide—if the land is thoroughly reclaimed—if the embankment fully answers its purpose—and if the constantly increasing number of offensive manufactories does not prejudicially affect the sanitary condition of the neighbourhood—then Stangate will answer fairly enough for the purposes of St. Thomas's. But that hospital, for centuries the special benefit of all South London, will be widely changed in character; and, from participation in its advantages, an immense population will be comparatively shut out. It is only fair to state that the medical staff have reported very favourably upon the new locality, and we need not say that, wherever the charity may be situated, these gentlemen will do their duty with all the zeal and ability they have hitherto displayed. The settlement, however, is one which settles nothing. What is to become of Bethlehem? Sixty of the governors of Bethlehem are also governors of St. Thomas's; and the time will come when negotiations conducted with a suspicious secrecy will be brought plainly into the light of day. Meanwhile, it is impossible that Bethlehem, in the face of the strong censures passed upon it by the Commissioners of Lunacy, can remain where it is. Two difficulties might have been solved at once in a manner that would have benefited, not perhaps the governors, but at any rate the patients of both hospitals. The opportunity

was a magnificent one; and heavy is the responsibility of those who have neglected it. Only a brief period can elapse before the examination into the management of our charitable institutions, which was foreshadowed in Mr. Gladstone's memorable speech, will actually commence. The governors of St. Thomas's best know in what estimation they will be held by the public when that inquiry shall have concluded."

MEDICAL SUPERINTENDENTS OF RAILWAY COMPANIES.

THE position in which a medical superintendent of a railway company is placed is a mixed one. He has to attend to the interests of the company which he serves, as well as to the performance of the more proper and immediate duties of his profession—the cure of the sick and wounded. This compound position, in which he is often called to act, naturally sometimes renders the performance of his duties somewhat difficult and delicate. A letter published in a late number of the JOURNAL is an illustration of this fact. As the matter is one of rather wide importance, we think it well to make a few general remarks on the subject.

The appointment by railway companies of medical superintendents, to attend to those unfortunates who may be injured by railway accidents, is a laudable and a humane practice. But it must be remembered, in saying this, that the companies, in doing the humane thing, have also their own interests very particularly in view; and we blame them not for it. One of the duties of the medical superintendent, besides that of ministering to the injured individual, is to protect the company against possible and probable imposition which may be attempted on the part of the injured. The medical officer, therefore, in this respect, certainly represents the interests of the company, as against the interests of the patient.

We willingly admit that, as a rule, railway companies are, in the matter of compensation to injured passengers, more sinned against than sinning, and are inclined to be liberal and generous; but still the fact remains—viz., that the medical officer, in visiting the injured party, comes to take care of the interests of his company, and not simply and purely, as a ministering angel, to heal the injured. Under such circumstances, it seems to us evident that the strictest professional etiquette should be observed by the medical officer so employed in all the relations into which he may be thrown with reference to the ordinary medical attendant of the injured party, or to any medical attendant who may be carrying out the cure.

Railway companies, it must be of course admitted, have a perfect right to keep their own medical officer for the purpose of attending upon any person injured on their lines; but they clearly have no

power to enforce on any injured person the attendance of their medical man. The injured party has a right to select his own medical adviser. Moreover, no medical officer of a railway company can claim as a right the power of visiting a party so injured, in order to learn the extent of his injuries, or for any other purpose. If he gain admission to the sick bed of the railway-smashed patient, he clearly does so solely by permission of the patient himself. Such being the facts of the case, as we understand them, it seems to us that the medical officer of a railway company is bound to follow most strictly the rules which guide other members of the profession under such circumstances. His being officer of the company in no way relieves him from obedience to the accepted rules of medical etiquette. Now medical etiquette clearly dictates that one medical man cannot properly visit the patient of another medical man—except temporarily in his absence, or in cases of urgency—without the knowledge or consent of the medical man already in attendance, and especially if uninvited to do so, or without the permission of the patient or his friends. At the moment of an accident, the company's officer of course, when present, gives his aid and advice without question. But this is a very different affair from visiting the injured parties whom he has never seen, after the accident, and when they are already under the care of some other medical practitioner. When the injured parties are under the care of their own selected medical man, it is, in our view of the case, clearly the duty of the company's officer to visit them only in consultation with, or with the consent of, the medical man in attendance, as well as under permission from the injured party. It will not do to say that in such case the medical officer does not visit the injured individual simply in his quality of practitioner of medicine, or that he attends upon him in some other "ministering" function; and for an obvious reason. The injured party, it is evident, admits him to his presence solely in his medical capacity, because he thinks, in fact, that he will have the benefit of his medical experience, or that the company's doctor is the bearer of some comforts to him. Certainly the sick man does not regard the doctor in the light of an agent come to make the best bargain he can for the company he serves; and we trust he never may. We think we may truly say, indeed, that it is under the guise of a practitioner of medicine that the company's doctor gains admission to the sick-room. If he claimed admission solely as an agent of the company come to assess the amount of damage done, it is clear that his claim would be rejected.

The reputation of the whole profession, it must also be remembered, is involved in a proper management of this very delicate business of medical superintendence. Our readers will, no doubt, be able to

recollect the very strong language in which judges have reprobated in courts of justice the abuse of the influence exercised by medical men in this character. We believe, as a rule, that medical superintendents exercise their office with great honesty and discretion; but we must nevertheless remark, that the position is one which especially demands most minute attention to the preservation of all the rules of medical etiquette.

We take it, therefore, as a fact, that no medical superintendent of a railway company does or can in reality enter the sick-chamber of a party injured on the railway, except in his capacity of medical practitioner—of curer of disease; and we follow out the logical conclusion, which is, that he must most punctiliously carry out all the ordinary and accepted rules of etiquette which regulate the intercourse of members of our honourable profession under such circumstances.

BDELLATOMY.

THE snipping off the tail of a leech engaged in sucking human blood, in order to let the blood run out of him, and so increase his powers of drawing blood, is an old and well known operation; but it has two objections, and has never found its way into common every-day practice. It is only of partial utility, and destroys the leech. Dr. Julius Beer of Berlin has recently taken up the subject in a more scientific manner, and now proposes, as an excellent and useful practice, what he calls bdellatomy—*Anglicè*, leech-cutting. The leech is to be cut into scientifically at the lower part of the abdomen, in a somewhat transverse direction. In this way is opened the most posterior of the blind appendices of the intestinal canal, of which the leech has ten or twelve; and a free passage is made for the escape of the blood which the leech is sucking. In this way, one leech (bdellatomised) may be made to serve the purpose of several leeches used in the ordinary way. Dr. Beer especially calls attention to the advantage in the case of children, in diseases of the uterus and of the eye. He lays especial force on the advantages of the method in the latter case; and *bdellatomia ophthalmico-therapeutica* he calls the treatment. The operation does not appear to interfere with the due performance of his medical duties by the leech; and Dr. Beer says that one such leech generally does all that is wanted. When such a leech is removed from the place where he is sucking, he will take hold at another place; and so on again and again. Dr. Beer says that he has had leeches, thus prepared, who for six days running performed their duties in this way, passing off the blood either through the original wound or through a freshly made one. He measures the quantity of blood obtained by letting the tail end of the leech hang in a glass containing

distilled water. Three objects are gained by this method, he tells us: 1. Humanity suffers less; 2. Economy is promoted; and 3. Precision is introduced into the art of local blood-letting.

VIVISECTIONS IN FRANCE.

WE are very glad to find that the French medical journals are entering protests against the cruel abuse which is made of vivisection in France. *L'Abeille Médicale* says:

"I am quite of your opinion as to the enormous abuses practised at the present day in the matter of vivisections. Exaggeration compromises the cause which it would defend; and in this way let us take care that vivisection is not condemned through the *saturnalia* which are performed in its name. The practice of vivisection should be confined within wise limits. In the laboratories of the College of France, in the Jardin des Plantes, in the Ecole de Médecine, eminent professors, placed at the head of instruction, are forced to the painful sacrifice of destroying animals in order to widen the field of science. In doing so, they act legitimately; and suffering humanity demands it of them. Those experiments are performed in the silence of the private study; and the results obtained are then explained to the pupils or treated of in publications. Whether useful or not in a practical sense, these results are accepted with that consideration which the position of their authors naturally commands. But to repeat the experiments before the public, to descend from the professional chair in order to practise the part of a butcher or of an executioner, is painful to the feelings and disgusting to the sentiments of the student. Charles Bell, Magendie, Flourens, Cl. Bernard, have made many experiments; but these experiments are not repeated at the College de France. Such public exhibitions are ignoble, and of a kind which pervert the generous sentiments of youth. An end should be put to them. Ought we to allow the *élite* of our French youths to feed their eyes with the sight of the flowing blood of living animals, and to have their ears stunned with their groans, at this time of day, when society is calling out for the doing away with public executions? Let no one tell us that vivisections are necessary for a knowledge of physiology. Bérard taught that science for many years, but never did he practise needless and painful experiments before his hearers. If the present ways, habits, and customs are continued, the future physician will become marked by his cold and implacable insensibility. Let there be no mistake about it: the man who habituates himself to the shedding of blood, and who is insensible to the sufferings of animals, is led on into the path of baseness."

So writes *L'Abeille Médicale*. But here *L'Union Médicale* takes up and comments on the tale:

"This is all excellently said; but we must correct a few errors. Magendie, alas! performed experiments in public, and sadly too often at the College de France. I remember once, amongst other instances, the case of a poor dog the roots of whose spinal nerves he was about to expose. Twice did the dog, all bloody and mutilated, escape from his implacable knife; and twice did I see him put his fore legs around Magendie's neck and lick his face. I confess—laugh, Messieurs les Vivisecteurs, if you please—that I could not bear the sight. And again, *hélas!* M. Cl. Bernard performs vivisections in public in his course of physiology. It is, indeed, true that Ph. Bérard, professor of physiology, never performed a single vivisection in his lectures, which were brilliant, elegant, and animated. But Bérard was an example of a singular psychological phenomenon. To-

wards the close of his life, so painful to him was the sight of blood and the exhibition of pain, that he gave up the practice of surgery, and would never allow his students to witness a vivisection. But Berard was attacked by cerebral hæmorrhage, and the whole tone of his character was thereby afterwards changed. The benevolent man became aggressive; the tolerant man, irritable; the hesitating and doubtful man, resolute and positive. Moreover, he became an experimenter, and passed whole days in practising vivisections, taking pleasure in the cries, the blood, and the tortures of poor animals. Let us use, but not abuse, the practice. But where does the use end and the abuse commence? This problem, we are assured, is clearly laid down in the late Professor Moquin-Tandon's report, which we hope will be soon given to the profession."

THE WEEK.

THE *Gazette* of Tuesday week contains the announcement that the Queen has been pleased to confer, by letters patent, the dignity of knighthood on "James Cox, of Kinellan, in the county of Edinburgh, Doctor of Medicine, one of the Commissioners of the General Board of Lunacy in Scotland." The honour is worthily bestowed. It is mainly to Dr.—or rather, we must now say, Sir James—Coxe, that the improvement in the treatment of pauper lunatics in Scotland, which has been effected within the last few years, is due. He was the author of the *Report of the Royal Commission of Inquiry* into the state of lunacy in Scotland, which six years ago excited so much amazement, and led to the formation of the Scottish Lunacy Board, of which Sir James Coxe and Dr. Browne are the principal members.

ANOTHER of those trials has been reported in the journals which often bring no great credit to our profession; we mean an action against a railway company, involving injury to the plaintiff. The usual array of medical authorities were brought to bear one against the other, and to a great extent in the way of flat contradiction. For the plaintiff we have Mr. Williams of Neath, who "believed that the plaintiff had sustained an injury in the shoulder, and that he would never entirely recover the use of it." Mr. Hall of Swansea gave similar evidence, and said that "it would be difficult to say when he would recover." Mr. Erichsen opined that he had received "a severe contusion of the shoulder, possibly a rupture of some muscle; but thought that he might recover in time." Mr. Partridge gave similar evidence. Mr. Jones, "a surgeon of long practice in London, stated that he considered the injury much more serious than had been described by the previous witnesses. He knew a very similar case which had ended in apoplexy." To set off against this evidence for the plaintiff, the company produced the following medical evidence.

"Mr. Anderson of Leicester, who had examined the plaintiff at once, stated that he saw no marks of a

serious blow; and he should think that a severe injury to an interior muscle could scarcely take place without some bruise, or discoloration, or swelling.

"Dr. Bolton, who had seen the plaintiff just after the accident, stated that there was no bruise, discoloration, or swelling, nor any drooping of the arm, or any difficulty in raising it that he could discern. He thought the plaintiff was shamming to some extent.

"Mr. Lankester of Leicester, who had seen the plaintiff daily for a fortnight, gave similar evidence, and said he thought the plaintiff was shamming.

"Mr. Paget of Leicester stated that there was a contusion; but he said he had never seen any serious injury from such a cause, and told the plaintiff he would be well in six weeks.

"Mr. Jones of Neath believed that he to a great extent exaggerated the injury, and simulated pain and difficulty in moving his arm.

"The next witness was the illustrious and venerable surgeon, Mr. Lawrence, whose evidence was listened to with the utmost attention and interest by every one, especially the many medical men present. He stated that he had examined the plaintiff carefully, and heard his account of the accident and the effects. There was stiffness in the shoulder-joint, but no impediment to motion of the arm or hand. The patient resisted the attempts he made to move the shoulder-joint, and it appeared to him that he resisted voluntarily. Drawing off his attention, he found he could move the arm more readily; and he also found that the patient showed power in his hands when he said he had none. He had observed the plaintiff, even in the witness-box, using only his left hand; whereas he knew he could use his right. His own opinion was that there was merely a bruised shoulder; and that, had the man come to him, he should have treated it as such; but complete inaction had increased the stiffness. It appeared that the plaintiff had kept his arm bandaged up for five months, and he supposed it was worse now than it had been at first. The witness said he thought there was nothing serious the matter with the plaintiff, and believed he was shamming in a great degree. There was genuine stiffness now, but caused by the five months inaction of the arm."

The jury, as usual, gave a verdict against the railway company.

WE are glad to find, that the action of Morgan v. Lingen, which, as our readers may remember, was postponed from the last assizes at Hereford to the present, has gone completely in favour of Dr. Lingen. The action was brought "for speaking and writing and publishing slanderous and libellous words of the plaintiff, to the effect that she was suffering under delusions, by reason of which the plaintiff was injured in her profession of a governess." Baron Martin, in summing up, said:

"The law now left it to the jury to say what was or was not a libel; but he would give them his opinion to assist them. It was that a statement in writing that a lady's mind is affected, and that seriously, is without explanation *prima facie* a libel; and, therefore, the letter to Mrs. Williams of September 5th was *prima facie* a libel. Then came the question, whether it was a privileged communication, or what constituted such a malicious publication of statements injurious to the character of another as to enable an action to lie. Such a publication is malicious unless made by a person in discharge of a public or private duty arising out of a matter in which he is concerned, and made without malice; but if fairly warranted by any reasonable exigency, and

honestly made, it would be privileged. The question, therefore, for the jury, would be whether the letter of September 5th was fairly warranted by a reasonable occasion or duty, and honestly made—that is, with a *bona fide* belief in its truth—and they would judge of this by the knowledge the defendant possessed at the time he wrote that letter. The letters to the brother and to Mrs. Jones (his lordship said), in his opinion, were not libels. As to the slander, he thought there was no evidence of any special damage. Then they must consider whether the defendant ever intended to use the expressions he did with reference to the plaintiff's profession of government."

The jury retired, and subsequently found a verdict for the defendant.

THE report on the subject of vivisections, drawn up by the late Dr. Moquin-Tandon, has been presented to the Academy of Medicine. The following are the general conclusions arrived at by the commission appointed to investigate the subject.

"1. Vivisections are indispensable to physiology, and operations on living animals are necessary for learning the manœuvres of operative medicine in the veterinary art. 2. They should be undertaken with reserve, and the greatest care should be taken not to give them a character of apparent cruelty. 3. The experimenter should always have in view a real progress in science. 4. Students should not perform experiments except in the great centres of study, under the direction of the professors. 5. Every means at the disposal of science for the diminution of pain should be put into requisition by the experimenter."

M. DEBOUT says that sugar is an excellent destroyer of worms. He once accidentally put sugar instead of salt on a leech which he wished to detach from the skin, and was surprised at the spasms produced by it. He therefore tried sugar on earthworms, and found it had a similar powerful effect; and has since used it in solution with success as an injection in children.

The French medical press thus talks of the late College of Surgeons election. "This annual election of Councillors has been a great triumph for *individual initiative*. Heretofore the election has been a mere form, the members going on being re-elected. But abuses increasing in the bosom of the learned assembly, and ameliorations and reforms being negated, the *Fellows*, members of the College, determined to use their power of election to make an example, and put an end to such a state of things! To combat the Council and its influence, the voters in great number voted as one man (*sic*) in favour of MM. Laue, Busk, and Hancock. A lesson this to conservatives, to teach them how to yield reforms in time, in order to avoid revolutions!"

The *Morgenblad*, a Christiania journal, tells us as follows: "At the request of Professor Boeck, Drs. Steffens, Egeberd, and Voss formed a commission to investigate the experiments made in the treatment

of syphilis by syphilisation. These messieurs have fulfilled their mission from the year 1846 up to the year 1859, having regularly visited the hospital where the experiments were made. The last number of the *Norsk Magazin för Lægevidenskaben* (June 1863) publishes their report. The following are the conclusions given in it. "From what we have seen, we consider that syphilisation is a curative method superior to derivation; and, although we cannot say that syphilis is always cured by this method, we unanimously declare that we know of no treatment which produces more or even an equal effect with syphilisation in cases of secondary syphilis in which the patients have not been treated with mercury."

The Calabar bean, says *L'Union Médicale*, has been imported into England through the isolated and persevering efforts of individuals. "Yes! it is in this simple and disinterested way that proud Albion has bestowed a grand discovery on the art of medicine, and on the world a great benefit. Great is the force of individual initiative! Great the blessings of the press!"

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

EXHIBITIONS OF PHOTOGRAPHS AND MODELS.

[Notice of the following communications was omitted in our report of the meeting last week.]

At the meeting on Friday, some photographs were exhibited, displaying the present state of a patient from whose orbit a large cancerous growth had been removed by Mr. C. H. Moore. The patient herself was presented last year at the meeting in London; and the account of her case was published in the *BRITISH MEDICAL JOURNAL* of August 23rd, 1862. The photographs were by Mr. Heisch, Lecturer on Chemistry at the Middlesex Hospital. They showed the large cavity fifteen months after the operation, completely healed, altered, and contracted to an oval shape, and without any trace of the former disease. The nasal and other bones, including the entire circumference of the front of the orbit, which had been removed by sloughing after the action of the chloride of zinc, were likewise exhibited. The patient remained in the Cancer Establishment of the Middlesex Hospital, perfectly well in health; and wore a mask which had been ingeniously made and fitted for her by Mr. Turner, dentist, of Margaret Street, Cavendish Square. She was a little apt to sneeze; and somewhat frequently had slight catarrh. In that event, the Schneiderian membrane became quickly and much swollen, but the swelling soon subsided again. The skin of the cheek, malar region, and forehead, adjoining the scar, remained benumbed in consequence of the destruction of portions of the fifth nerve.

Dr. Thomas Ballard exhibited several models illustrating the deformities of the jaws and teeth, which, according to him, result from the habit of sucking the fingers, the thumb, or the tongue, during childhood; the subjects of the deformities always being, in some degree, weak and delicate.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 23RD, 1863.

R. PARTRIDGE, Esq., F.R.S., President, in the Chair.

CASE OF STRANGULATION OF THE STOMACH IN AN UMBILICAL RUPTURE: DEATH DURING ITS REDUCTION UNDER CHLOROFORM. BY CHAS. H. MOORE, F.R.C.S.

A corpulent woman, aged 60, was admitted into the Middlesex Hospital, under the care of Mr. Moore, with a strangulated umbilical hernia fourteen inches in diameter. She had been operated on for strangulation ten years before, by Mr. Wornald. She was greatly exhausted, having been vomiting six days and constipated three days, and having taken calomel and been leeches and blistered. She had vomited two gallons of fluid in the previous forty-eight hours. The pulse was 120.

A drachm of chloroform and four successive portions of forty minims each were inhaled during eleven minutes. The taxis was employed, and was twice interrupted—once by her coughing, once by vomiting. It was continued four or five minutes after the inhalation of chloroform was discontinued, and until about one-third of the hernia had been reduced. She was then so feeble that all but restorative measures were stopped; in four minutes more she was dead. The pulse and respiration continued uniformly and failed proportionally until both ceased.

The cardiac and pyloric ends of the stomach were in the abdomen; the intermediate portion was fixed and constricted in the hernial ring. The cardiac portion was flaccid and empty, but was of enormous capacity. Many parts of its mucous membrane were gangrenous and black, and some were lacerated. These lacerations bore a definite relation to the œsophageal opening. The peritoneal coat near the spleen was also ruptured, and the back of the cardiac pouch was in one spot completely perforated. About a gallon and a half of black liquid, similar to that which had been vomited, lay in the peritoneum. This membrane was not inflamed, but the aperture through the stomach was partly black and pulpy, partly inflamed, partly infiltrated with the contents of the stomach, and a little ecchymosed.

The writer commented, 1. On the unique character of the case—a complete strangulation of the stomach itself. None of the black fluid had passed into the small intestines, which contained air and a little yellow bile. 2. On the dilatation of the cardiac portion, to the inordinate distension of which he attributed the gangrene. 3. On the rupture of the stomach. The lacerations might have been traced to the taxis, had there been any mark of violence in the portions of the stomach within reach during that operation; but these seemed proved, by their radiated disposition with regard to the œsophagus and by the pathological changes in the principal rupture, to be due to vomiting. The perforation of the stomach might have been almost entirely produced by the vomiting, but might have been completed by the taxis. 4. On the cause of death. The importance of the case in respect to the toxic effects of chloroform and to the supposed sudden fatality of ruptures of the stomach was considered, and reasons were offered for assigning the result to neither separately, but to both, in common with the previous and great exhaustion of the patient. 5. Finally, it was suggested that the stomach-pump might have relieved such a case with less danger than was involved in the use of chloroform and the taxis, though actual recovery was in the highest degree unlikely.

CASE OF TRANSPOSITION OF THE GREAT VESSELS OF THE HEART. BY JOHN COCKLE, M.D.

The subject of the case was a boy, who lived to the age of two years and eight months. He was born at the full period, perfectly healthy, and remained so until the end of the third month. He now became cyanosed, and suffered from cough and dyspnoea. His lower limbs were always weak; he was also very sensitive to cold. Under emotion the cyanotic tint darkened, and the dyspnoea and habitually increased impulse of the heart would be still further increased. No convulsions, however, occurred. The child was remarkable for unusual intelligence. Eventually he lost flesh, and became dropsical and covered with petechiæ, and died apparently from exhaustion.

The heart was found dilated and hypertrophied. The aorta arose from the right ventricle, and divided into its ordinary branches. The pulmonary artery, with its valves very large, arose from the left ventricle, and normally divided. The ductus arteriosus was perfectly closed. The foramen ovale was largely patent; the interventricular septum perfect. The various orifices and valves were healthy. The mitral valve, however, was, as it were, tricuspid. The left lung was in part unexpanded.

The number of cases of transposition recorded amounts to about thirty-two. Only three cases, however, are on record in which the foramen ovale was alone patent, the arterial duct being closed, and the ventricular septum entire. In such cases, were it not that some interchange of blood occurred through the foramen ovale, two perfectly distinct circulating systems would have existed. No other vessels certainly compensated in this case.

INQUIRIES INTO THE ACCESS OF AIR AND WATER TO THE TYMPANUM, THE MEMBRANA TYMPANI BEING IMPERFORATE. BY WILLIAM KRAMER, M.D.

The view that there is free access of air and water to the tympanum, the membrana tympani being imperforate, has been hitherto generally adopted. The author was very lately induced to put this view to the test by experiments on physical instruments and on dead bodies. He described the instruments he used for this purpose—viz., a little glass apparatus, representing the Eustachian tubes, the tympanum, and the membrana tympani, a set of silver ear-catheters increasing in calibre, and an India-rubber ear-catheter.

The following are the deductions he arrived at from four experiments:—

1. There is no free access of air or water to the tympanum if blown in or syringed through a silver ear-catheter, the Eustachian tube being completely pervious.
2. There is free access of air or water to the tympanum, if blown in or syringed through an India-rubber ear-catheter pushed forward to the osseous part of the Eustachian tube.
3. The perception of sonorous sounds of the air blown into the Eustachian tube through the author's smallest-sized silver ear-catheter, proves the Eustachian tube to be completely pervious.
4. The perception of dull, faint, or no sound at all of the air blown through silver ear-catheters of any size, proves the Eustachian tube to be incompletely or not at all pervious.

Certain peculiarities in the perception of these sounds in living men render it most likely that air, blown into a narrowed Eustachian tube through silver ear-catheters of a gradually increasing size, enters the tympanum, the membrana tympani being imperforate.

CASE OF POPLITEAL ANEURISM CURED BY DIGITAL COMPRESSION. BY GEO. SOUTHAM, F.R.C.S.

The patient was in his thirty-third year, an iron-moulder by trade. From the man's account, the disease

did not appear to have been of more than nine or ten weeks duration. He was admitted into the Manchester Hospital on December 29th, 1862. The right popliteal space was distended by a pulsatile swelling, accompanied by severe pain and general œdema of the leg. The pulsation of the tumour was very perceptible, but feeble, and the skin over it slightly discoloured. His countenance bore indications of severe suffering. Pulse 120, small and quick; appetite bad. So urgent did the case appear that clamps were immediately applied over the femoral artery. The limb was enveloped in flannel bandages, and elevated on pillows; bottles of hot water were placed near, to raise the temperature of the foot and leg to the natural standard. The following day the clamps were removed, as they had produced redness and vesication of the skin. Iodide of potassium was now prescribed, and regularly taken until January 20th, with no apparent improvement. Digital compression was then resorted to, twelve students of the institution having volunteered their services. During the first twenty hours this system of pressure was frequently interrupted, and therefore at the end of this period the pulsation had apparently undergone no change. Consequently, two students were directed to be continually with the patient, one to compress the artery, the other to apply his hand over the aneurism to detect any insufficiency of the pressure. This plan was adopted for twenty-four hours; a very slight pulsation only could then be felt in the tumour, and six hours later it had entirely subsided. Moderate pressure was, however, kept up for another day, and then discontinued, as there were no signs of any further pulsation. From this time the case proceeded very satisfactorily, the man leaving the hospital at the end of three months, with scarcely any remaining trace of the disease.

Mr. SOUTHAM considered that pressure must now be regarded as the established system of treating aneurismal tumours whenever practicable; but the best mode of applying it is still a subject for discussion. In the present case the vitality of the limb was evidently too much impaired to admit of the application of instrumental pressure; indeed the unusual size of the tumour, the unsatisfactory condition of the surrounding parts, as well as the patient's general health, formed in themselves serious obstacles to any kind of operative interference. Many are the advantages of digital over instrumental compression. Not only does it seem to effect a cure in a shorter period of time, but with much less pain, and is not so likely to lead to sloughing of the structures under pressure, which with the greatest precaution is liable to occur in some cases. The flow of blood through the aneurism may not be so effectually prevented by this means, and indeed this is not to be desired, as fibrillation of the blood is more likely to occur, and to be more permanent, if allowed to pass through the sac in small quantity and in a slow continuous stream; for digital compression is not liable to those sudden alternations in force and volume which under instrumental pressure are apt to take place in consequence of the tendency of the artery to escape from under the clamps on any slight movement of the limb. But pressure alone must not be entirely relied on in the treatment of aneurism; for, as success depends on the consolidation and subsequent absorption of the blood in the tumour, other agents of similar properties, to combine with, must be sought for. The difficulty in arriving at correct views of the medical treatment of aneurism is probably owing to our imperfect knowledge of the changes which contribute to the solidification of the aneurismal contents.

The process is usually regarded as similar to the coagulation of the blood out of the body; but it is questionable if this be exactly so where the solidified material is partially absorbed or converted into structure. Ordinary coagulation of the blood is one consequence of its diminished vitality, and therefore would more likely

be followed by its removal from the body by ulceration and suppuration than by absorption. It seems, therefore, highly probable that the solidification of the blood within the body, previous to its absorption or conversion into tissue, differs somewhat at least from that of ordinary coagulation. This may explain how low diet, which by depressing the vital properties of the blood should promote its coagulation, has not led to those salutary results expected by its advocates in the treatment of aneurism.

THREE CASES OF ICHTHYOSIS SPURIA VEL SEBACEA.

BY J. W. OGLE, M.D.

After certain preliminary observations regarding the differences between the true ichthyosis (so called) and the spurious, the latter of which owes its characteristics to an accumulation of secreted material from the sebaceous follicles of the skin, which become indurated and adherent to the surface, Dr. OGLE proceeded to describe the cases of two sisters who were afflicted with the ichthyosis sebacea. These patients were respectively of ten and fourteen years of age, living in the neighbourhood of London. They had both been vaccinated about five years before they came under treatment, and shortly after vaccination had become the subjects of a scattered pustular eruption, which assumed the form of open sores, and were succeeded by a roughness and dryness of various parts of the skin—viz., about the knees, down the legs, about the elbows and axillæ. This condition gradually increased until the parts became covered by large patches of dark-brown and almost black incrustations, which were broken up into scales or small tubular or lozenge-shaped portions, divided by deep lines according to the natural creasings of the skin. Owing to these concretions, the surface was harsh and dry, and in many parts the surface had much the appearance of the sole of the fowl's foot. Dr. Ogle showed a water-colour drawing, executed by Dr. Westmacott, of the surface of the foot of one of the patients, and also a quantity of the dry concretions which fell off, under treatment, from the skin.

The treatment consisted in the warm bath daily, and the subsequent rubbing in of lard, along with the liquor galii aparine, followed by the use of an alkaline lotion in the place of the lard infraction. In about five weeks the patients were discharged quite free from any traces of the affection.

The patients remained free from the disease for nearly four months, when they both again became affected in a like way as before, and one returned to St. George's Hospital. She was treated by Dr. Fuller, and again left the hospital free from any of the sebaceous accumulations, but with the skin red and glazed, and disposed to crack.

Dr. Ogle gave the chemical analysis of the sebaceous incrustations as determined for him by Dr. Harvey, and also made reference to the only recent case of a similar kind which he had met with—one by Dr. Biefel, quoted in the *Annalen der Charité-Krankenhaus*. From this, and from the tendency which in the case of one of the girls before described the skin showed to assume an unhealthy state, Dr. Ogle thought that such a condition of the skin might lead to actual disease of its texture.

ANTIDOTE FOR HYDROFLUORIC ACID. In case of burns from this liquid, M. Kessler recommends the application of lint wetted with acetate of ammonia, and the injection of the same solution into the blisters, if any have formed. If, however, the acid has got into places difficult to moisten, under the nails, for instance, he recommends caustic ammonia to be used instead of the acetate, and remarks that the patient should not trouble himself about the pain, sometimes very acute but transient, which follows the application. (*Répertoire de Chimie Appliquée*, June 1863, and *Chemical News*.)

Correspondence.

DERBY INFIRMARY.

LETTER FROM JOHN HITCHMAN, M.D.

SIR,—Fearing that the remarks of my esteemed neighbour, Dr. Ogle, in your JOURNAL of Saturday last, may mislead physicians residing at a distance from Derby into the belief that there is a paucity of physicians in this town, I subscribe, in the order of seniority, an accurate list of gentlemen now practising in the town; which list is as follows:—

Heygate, James, M.D. Edinburgh; Fellow of the Royal Society; and Consulting Physician to the Derby Infirmary.

Watson, Henry Waldron, M.D. St. Andrew's; Member of the Royal College of Physicians, London; and late Physician to the Derby Infirmary. [Dr. Watson was the immediate predecessor of Dr. Ogle at the Derby Infirmary.]

Ogle, William, M.D. Cantab.; Member of the Royal College of Physicians, London; and Physician to the Derby Infirmary.

In addition to the above, there are three general practitioners of transcendent ability and great experience; two of whom have a large consultation practice in medical cases. There are nearly, or quite, twenty-five practitioners in the whole; some of whom are doctors of medicine, and one, indeed, was educated at Cambridge, like unto Dr. Ogle, and preceded him in the office of physician to the Infirmary. As an impartial looker-on, I feel persuaded that Derby has, in point of numbers, as many physicians and surgeons residing in it as are needed; for almost every good-sized village in its suburbs is favoured by the presence of a medical man. The supply already exceeds the demand; and several have to depend on their private resources, rather than on their professional income, for a subsistence.

I am, etc., JOHN HITCHMAN,
Member of the Royal College of Physicians, London.

Mickleover, near Derby.

THE TREATMENT OF RHEUMATIC FEVER.

LETTER FROM J. R. O'BRYEN, M.D.

SIR,—I have read with great pleasure the communication from my friend, Dr. Nevins of Liverpool, in the JOURNAL for August 1. Permit me to make a few general observations on the treatment he proposes for rheumatism. I shall avoid all detail. I could supply a long list of cases treated in private since 1837, and at St. Peter's Hospital, Bristol, from 1843, after a somewhat analogous plan, and with a success not to be equalled by any other mode proposed. I need scarcely say that I have tried all known methods.

Be it observed, I was equally successful without the assistance of either quinine or iodide of potassium. Hence, it will appear that the successful result may clearly be attributed to the alternate action of heat and cold, and the reaction in the capillary circulation which followed.

I had frequently occasion to observe the influence which the capillary circulation of the skin exercises in the general health and progress of disease.

See how quickly death follows an extensive, though very superficial, scald of the skin. Check the capillary circulation of the skin by a draught of cold air; and catarrh of the mucous membrane of the air-passages, or some other ill that flesh is heir to, follows. Envelope the human frame in a closely fitting Mackintosh dress, and, after a short time, a feeling of oppression and suf-

focation supervenes. During the reaction after a cold sea-bath, who has not experienced the *bien aise*, the increased vigour of body and facility of taking a much deeper inspiration than usual, with other pleasurable sensations? Hence the acknowledged benefit of sea-bathing where reaction takes place. If not, sea-bathing is said *not* to agree, because a blue, cold skin, a sense of heaviness, and disposition to sleep, with lassitude and pain in the head, succeed. All are the effects of congestion, caused by the want of reaction.

Then, again, in acute and chronic disease, observe the feeling of oppression that accompanies the dry, hot skin of fever; and in eruptive diseases, the immediate relief when the eruption has appeared. Observe, again, in chronic disease, the cold, pallid skin; at one moment dry, then covered with a cold moisture; the feeling of debility; the profuse perspiration on slight exertion, followed by exhaustion. Abstract the caloric in the first case, and charge the system with it in the latter, and as quickly abstract it, and observe the relief that follows. Expand by caloric, and red blood enters the capillary circulation; contract it again by its sudden abstraction; reaction follows, and you give activity to so many vital changes before at rest or in abeyance.

In some cases, I used dry heat from the spirit-lamp, either in the bed, with a cradle to raise the bed-clothing, if the patient were unable to be placed in the chair which I had constructed for the purpose, with a Mackintosh dress; or I placed a lump or two of lime in a wet flannel on a disc, if I wanted moist heat.

The first case where I used this successfully was in a case of cholera in 1837. The stage of collapse had just commenced. The man recovered.

I have also had red-hot bricks placed in the hot water beneath the chair, which was so constructed that the hot air or steam could escape and act upon the naked skin without danger of scalding, being retained by a dress of hospital sheeting. On a second dry, hot brick, as occasion required, I placed either sulphur or mercury, to act in combination with the steam.

The usual duration, under this treatment, of ordinary cases of acute articular rheumatism was about seven or eight days. The longest rarely exceeded fourteen days. Convalescence was rapid, and a relapse very rare. Heart complications were seldom met with, save in very young subjects; and then were easily got rid of. My entire treatment consisted of moderately good diet, an occasional purgative—say one or two at the commencement of the attack; with colchicum and an anodyne. If the pain were severe and the nights restless, I preferred Dover's powder or powdered opium.

The hot air bath suited those who were thin and aged; whilst the steam, with or without the addition of sulphur mixed with the vapour, suited those that were young and plump. In every case, the extra heat was extracted, either by a cold sponging or rubbing down with a towel wrung out of cold water, with addition, in certain cases, of either salt or vinegar; or, when the patient could bear it, cold water thrown over him and his person rapidly dried by friction; or he was placed in a small quantity of cold water and washed over. In more chronic cases, the heat was abstracted by the shower- or douche-bath.

I frequently ordered in private a soda-bath with bran at a temperature of 106° to 110° for five or eight minutes, immediately followed by the shower or douche where the skin was harsh, scaly, and dry. I soon found that daily exercise in the open air gradually increased, so as to unbuilt the whole man, and throw the *materies morbi* into circulation for elimination, aided greatly the good effects of the baths; and when this was impossible, it was replaced by friction, the patient assisting. Attention to diet, and, where needed, stimulants, with little or no medicine, enabled me to combat successfully a long list of otherwise obstinate and intractable forms of disease.

I cannot help giving one illustration. One day, on making my visit to St. Peter's Hospital, Bristol, my attention was called to a new patient, a cabman, about 35 years of age. He stated that he had been ill nine months, and had tried everything; that he had remained his entire time out, taking hot baths at the Bath Hospital (I believe about three months); that he then entered the Bristol Infirmary, where he remained as long as allowed—about the same time. But being no better—in fact, rather worse—he was removed to the St. Peter's, which was the refuge for the destitute. He stated he had been nine months ill with acute rheumatism; he was sometimes better, but never free. He was much emaciated; pulse weak, and 90; skin pallid, and covered with cold moisture. He lay on his back, with his arms and legs stretched out and immovable. Every joint was swollen, painful, and hot. The muscles of his neck and back were stiff. The heart, lungs, and head were free. He lay like a statue, unable to move any part of his body, save his eyes and neck a little. His only medicine consisted of an anodyne at night and a gentle aperient when necessary, generous diet, a daily vapour-bath, with *cold sponging* afterwards, followed by *friction*. In ten days, he took his baths out of bed. In six weeks, he went out quite well, though still weak. I saw him afterwards for two years, and he never had a return of the rheumatism. We cannot attribute any part of the benefit to the heat of the hot water baths, as he took them daily for three months at Bath, and often at the Infirmary. To my mind, the action of the caloric, *its sudden abstraction*, and the reaction that followed, were the remedial agents *par excellence*.

It affords me much pleasure thus to be able to give independent testimony to the success of the treatment pursued by Dr. Nevins—a treatment introduced by me in 1837, and in which the experience of every year strengthens my confidence; not as applied to rheumatism alone, but to a long list of other affections, dyspepsia and its consequences being in the first rank.

I am, etc., JOHN R. O'BRYEN,
Late Physician to St. Peter's Hospital, Bristol.

11, Thistle Grove, West Brompton, London, S.W., Aug. 1863.

POOR-LAW MIDWIFERY FEES.

LETTER FROM LINNINGTON ASH, L.R.C.P.ED.

SIR,—I beg the insertion in your JOURNAL of the accompanying correspondence, because I do not remember to have ever seen the point at issue so clearly defined or so conclusively determined as in this instance. The decision of the Poor-law Board, although adverse to myself, and in my opinion a wrong one, I am bound to consider final; but the publication of the following letters possibly may induce such remarks from our professional brethren as may ventilate the subject and lead to a better result for us in future.

I am, etc., LINNINGTON ASH.
Holsworthy, Devon, July 29th, 1863.

I. Dr. Ash to the Poor-law Board.

Holsworthy, July 16th, 1863.

MY LORDS AND GENTLEMEN,—The Guardians of this Union have disallowed two items in my bill of extras for medical attendance on two cases of premature labour, on the ground of doubt whether they come under the intention of the 182nd Art. of the Consolidated Order which relates to the payments of medical officers on cases of "childbirth"; and it has been mutually determined to submit to the decision of your Board, which shall be final. As I am quite satisfied with the way in which the case has been proposed to you by Mr. Braund, I will not recapitulate the facts, and merely wish to suggest that the Order attempts no distinction between cases premature or mature, viable or not viable, live or still-born; and,

moreover, it is well known that cases of premature labour are often more difficult of treatment, more serious to the patient, and of greater responsibility, delay, and trouble to the medical man, than ordinary cases of labour. I have only to add, that I have on a previous occasion been paid by our Board for a similar case; and consequently, that I am jealous of a departure from such a precedent, and can submit to it only when it can be clearly shown to be irregular or illegal.

I have the honour to remain, My Lords and Gentlemen,
Your obedient servant,
Poor-law Board, London. LINNINGTON ASH.

II. The Clerk of the Holsworthy Board of Guardians to the Poor-law Board.

Holsworthy, July 16th, 1863.

MY LORDS AND GENTLEMEN,—I am directed by the Board of Guardians of this Union to report that Dr. Ash, the medical officer of the fifth district in this Union, claims to be paid under Art. 182 of the Consolidated Order dated July 26th, 1847, for his attendance on Mary Hancock and Ann Croker, two women prematurely confined, a fee of 10s. in each case. It appears that neither woman was more than five months advanced in pregnancy. Under these circumstances, the Board will feel obliged to be informed whether in these cases, as well as in all cases of premature birth, a medical officer is entitled to be paid the above fee, the same as if he attended "any woman in or immediately after childbirth."

I am, etc., GEO. BRAUND, Clerk.
Poor-law Board, London.

III. The Secretary of the Poor-law Board to Dr. Ash.

Poor-law Board, Whitehall, S.W., 21st July, 1863.

SIR,—I am directed by the Poor-law Board to transmit for your information the accompanying copy of a letter which the Board have addressed this day to the Guardians of the Holsworthy Union, respecting your claim, as medical officer of the fifth district, to midwifery fees in the cases of two poor women named Mary Hancock and Ann Croker.

I am, sir, your obedient servant,
H. FLEMING, Secretary.
T. L. Ash, Esq., M.D., Medical Officer, Holsworthy.

IV. The Secretary of the Poor-law Board to the Clerk of the Holsworthy Union.

Poor-law Board, Whitehall, S.W., 21st July, 1863.

SIR,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 16th instant, in reference to the claim which has been made by Dr. Ash, the medical officer for the fifth district of the Holsworthy Union, to the midwifery fees prescribed by Article 182 of the Consolidated Order, for his attendance on the cases of Mary Hancock and Ann Croker.

I am directed to state generally [the italics are ours], that the midwifery fee prescribed by the Regulations is for the delivery of a woman in *childbirth*; and that the Board consider that the term *childbirth* only applies to a case in which the child was or might have been born alive.

I am, sir, your obedient servant,
H. FLEMING, Secretary.
Geo. Braund, Esq., Clerk to the Guardians of the Holsworthy Union, Holsworthy.

PREPARATION OF PURE CYANIDE OF POTASSIUM. The cyanide of potassium prepared according to Liebig's method, by fusing the prussiate and carbonate of potash, is not pure, but contains carbonate and cyanate of potash. It may be purified by digesting the raw cyanide with sulphide of carbon. The latter, when poured off from the sediment, may be recovered by distillation. As the sulphide of carbon is now very cheap, this method of purifying cyanide of potassium may be recommended. (*Breslauer Gewerbeblatt*, 1863.)

Medical News.

UNIVERSITY OF LONDON. The following are lists of candidates who passed the respective examinations indicated:—Bachelor of Medicine. Preliminary Scientific Examination. Entire.

First Division.

Adams, Arthur Bayley, London Hospital
Ball, John Augustus, Guy's Hospital
Brown, James Campbell, University of Aberdeen
Buckell, Francis John, University College
Bushell, Stephen Wootton, Guy's Hospital
Dyer, William Turner Thiselton, King's College
Gowing, Benjamin Chastor, Guy's Hospital
Heathcote, Rowland, Royal Manchester
Hulme, Samuel James, Royal Manchester
Kelly, Charles, King's College
M'Dougall, Arthur, Owen's College
Maybury, Augustus Constable, St. Thomas's Hospital
Pooley, Thomas Alexander (private study)
Rogers, George Arthur, London Hospital
Smith, Charles James Hardy, University College
Spencer, George Othwaite, University College
Thomas, John Davis, University College
Whitwell, John Maude, University College

Second Division.

Aveling, Charles Taylor, St. Thomas's Hospital
Barrett, Howard, St. George's Hospital
Bateman, Francis, St. Bartholomew's Hospital
Birtwell, Henry Hargreaves, St. Thomas's Hospital
Bradshawe, Paris, King's College
Buck, Thomas Alpheus (private study)
Carter, Richard, Charing Cross Hospital
Cole, Thomas, St. Bartholomew's Hospital
Fager, Reginald, Guy's Hospital
Lethbridge, Charles Frederick, University College
Madeley, George Sherwin, Royal Manchester
Murphy, Thomas Charles, University College
Poore, George Vivian, University College
Sanders, Richard Careless (private study)
Sawyer, James, Queen's College, Birmingham
Smith, John Ablewhite, Middlesex Hospital
Smith, Robert Shingleton, King's College
Tindall, Alexander M'Ivor, St. Bartholomew's Hospital
Welch, John Burgess, King's College

Chemistry and Botany only.

First Division.

Berry, Other Windsor, Charing Cross Hospital
Cluff, James Stanton (B.A. Dublin), University College
Edwards, Thomas Marsden, Andersonian Institution
Fry, Augustin Barber, Guy's Hospital
Gooding, Ralph (B.A.), King's College
Graves, Boydell, University College
Grimes, John, King's College
Howse, Henry Greenway, Guy's Hospital
Hughes, John Pearson, University College
Melson, John Waller, Queen's College, Birmingham
Orton, George Hunt, St. Bartholomew's Hospital
Owen, David Charles Lloyd, Sydenham College, Birmingham
Stucker, John, University College
Summerhayes, Henry (B.A.), St. Thomas's Hospital
Wagstaffe, William Warwick (B.A.), St. Thomas's Hospital

Second Division.

Lees, Joseph, St. Thomas's Hospital
Metcalfe, Fenwick, King's College
Provis, William Alexander, King's College
Smith, Samuel Hignett, King's College

First M.B. Examination. Entire.

First Division.

Allen, Bryan Holme, University College
Deas, Peter Maury, University and Surgeons' Hall, Edinburgh
Duke, Oliver Thomas, Guy's Hospital
Green, Thomas Henry, University College
Mason, Philip Brookes, University College
Powles, Revett Coleridge Powles, King's College
Richards, Frederick William, St. Bartholomew's Hospital
Savage, George Henry, Guy's Hospital
Smith, Charles, Guy's Hospital
Snow, William Vicary, University College
Tayler, Francis Thomas, Guy's Hospital

Second Division.

Birt, Joseph, Sydenham College, Birmingham
Bond, Thomas, King's College
Edwards, Thomas Marsden, Andersonian Institution, Glasgow
Greaves, Charles Augustus, St. Thomas's Hospital
Lush, William George Vawdrey, St. Bartholomew's Hospital
Mackay, Edward, Queen's College, Birmingham
Murray, Thomas, St. George's Hospital
Powell, Richard Douglas, University College

Square, Charles Edward, University College
Trimen, Henry, King's College

Excluding Physiology.

First Division.

Hilliard, Henry Charles, Guy's Hospital
Turner, Ebenezer Fulham, Guy's Hospital

Second Division.

Glynn, Thomas Robinson, St. Bartholomew's Hospital
Harvey, Walter Austice, St. Bartholomew's Hospital
Norton, Arthur Trehern, St. Mary's Hospital
Read, Charles, University College

Physiology only.

First Division.

Best, Palemon, University College
Edis, Arthur Wellesley, Westminster Hospital
Phillips, John Jones, Guy's Hospital
Rivington, Walter (B.A.), London Hospital
Roberts, Frederick Thomas, B.Sc., University College
Smith, William John, University College
Spender, John Kent, King's College

Second Division.

Beddard, James, Guy's Hospital
Cooke, John, University College
De Negri, Athendore, University College
Gale, Henry Stanley, King's College
Jakins, William Vosper, University College
Lanchester, Henry Thomas, St. Bartholomew's Hospital
Langton, John, St. Bartholomew's Hospital
Miller, Richard May, University College
Simms, Frederick, King's College

ROYAL COLLEGE OF SURGEONS. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on July 30th:—

Betts, John, Norwich
Buckle, William Henry Fleetwood, M.D.St.And., L.R.C.P.Lond., Royal Mint
Cooke, James, Stretford, near Manchester
Eaton, Frederick Bond, Lausdown Road, Notting Hill
Edwards, John Henry, Langefin, Anglesea
Fentem, Philip Sheldon, Eyham, near Sheffield
Hogan, Francis Vincent, Dartford
Hyde, Edward, Witney, Oxon
Loane, John, Dock Street, Whitechapel
Moorhead, Joseph, Clones, co. Monaghan
Morton, Samuel, Sheffield
Oliver, George, Stockton-on-Tees
Parks, Charles Holman, St. Columb, Cornwall
Pollock, Edward James, Halton, Hounslow
Reid, James Gerhard, Cape of Good Hope
Robinson, John Craven, Scarborough
Snewin, Alfred George, Thornhill Square
Taylor, Frederick Stubbings, Greenwich
Taylor, Hugh, Norwich
Taylor, Shephard Thomas, L.R.C.P.Lond., Dilsham, Norfolk
Thomas, William Hopkin, Maesteg, Glamorganshire
Trible, John, Torrington, Devon
Weir, Christopher John, M.B., Trinity College, Dublin
Wicksteed, Francis William Slow, L.S.A., Maidstone
Woodhams, John Amos, Lamberhurst, Kent
Yarrow, George Eugene, L.S.A., Central Street, Old Street

Admitted on July 31st:—

Best, Frederick Arthur, Bilston
Bridgman, Isaac Thomas, Berkeley, Gloucestershire
Bush, John Henry Ryder, Devonport
Caudle, Charles Edward, L.S.A., Henfield, Sussex
Coombs, Carey Pearce, L.S.A., Frome, Somerset
Harris, James Smith, St. John's Wood
Hobson, William Henry, L.S.A., Long Sutton
Holden, John, Manchester
Johnson, Thomas Mason, M.D.St.And., L.S.A., Manchester
Kendal, Cuthbert Robert, Gateshead
Kettle, Henry, Tipton
Moore, Miller Montgomery, Buckstone
Puzey, Chauncy, Surrey Square, Old Kent Road
Reynolds, Edward Robert Bradley, Islington
Richmond, Sylvester, Hornsey
Rigg, John, Southport
Ruddock, Edward Harris, Woolwich
Searle, Francis Furlong, Exeter
Staff, George Thomas Albert, Barnes
Steell, Frederick, M.D.Edin., Edinburgh
Werry, Augustus, Smyrna
Wynne, John Kendrick, Oswestry

Admitted on August 1st:—

Aspray, Charles Owen, M.D.St.And., L.S.A., Newton Road, W.
Brown, Edward, Reading
Carter, Richard, Newbury
Day, William Henry, Wakefield
Gervis, Frederick Heudebourck, Tiverton
Hanna, James, New Zealand
Henderson, Hector Grahame, London

Jardine, Arthur David, Chatham
 Orr, Gavin, Belfast
 Phillips, George Richard Turner, Bayswater
 Roberts, Edwin, St. John's Wood
 Sharp, George Wyatt, L.S.A., Great Cumberland Street
 Sturton, Hubert Wilson South, Greenwich
 Thomas, Edward Steven, Birmingham

NAVAL SURGEONS. The following gentlemen have lately passed their examinations for full Surgeons in the Royal Navy:—

Cann, Thomas, M.D., of H.M.S. *Recruit*, Chatham; diploma of membership dated April 11, 1859
 Grose, Saml., of H.M.S. *Dauntless*, Southampton; April 11, 1859
 Lawrenson, Richard Charles Pasley, of the Royal Naval Hospital, Plymouth; December 12, 1856
 Richardson, Francis Hunt, M.D., of H.M.S. *Majestic*, Liverpool; April 13, 1857

APOTHECARIES' HALL. On August 6th, the following Licentiate were admitted:—

Bird, William, Tarporley, Cheshire
 Durrant, William, Manchester Street, Argyle Square
 Groves, Joseph, King's College
 Jones, John James, Queen's Road, Peckham
 Larkin, Charles Robert, Bishop's Castle, Salop
 Prince, Charles Edward, Balsham, Cambridgeshire

At the same Court, the following passed the first examination:—

Bennett, Francis Graham, St. Bartholomew's Hospital
 Black, Thomas Edward, St. Mary's Hospital
 Hawthorn, Frederick John, London Hospital
 Owen, David Charles Lloyd, Sydenham College, Birmingham
 Taylor, Arthur, Guy's Hospital

APPOINTMENTS.

BURTON, Thomas C., M.D., appointed Medical Superintendent of the Waterford Lunatic Asylum.
 COOPER, Horace, Esq., appointed House-Surgeon to the Reading Dispensary.
 EVANS, George, Esq., appointed Surgeon to the St. Marylebone General Dispensary.
 GRUBB, Richard T., Esq., appointed House-Surgeon to the Metropolitan Free Hospital.
 HARVEY, Robert, M.D., appointed Resident Surgeon-Accoucheur to the Birmingham General Dispensary.
 MOON, Robert C., Esq., appointed House-Surgeon to the Surrey Ophthalmic Hospital.
 MOORE, William, M.D., elected Physician in Ordinary to Sir Patrick Dun's Hospital, Dublin.
 *MUSSET, William B., M.B., appointed Physician to the Royal General Dispensary.
 ROBERTS, John, Esq., appointed Resident Medical Officer to the Bath General Hospital.
 ROBERTSON, John C. G., L.R.C.P.Ed., appointed Assistant Medical Officer of the Female Department of the Middlesex County Asylum, Hanwell.
 SIMPSON, John H., Esq., appointed Second Assistant Medical Officer to the Kent County Asylum.
 STRUTHERS, John, M.D., appointed Professor of Anatomy in the University of Aberdeen, in the room of A. Lizars, M.D., resigned.
 THOMSON, David P., M.D., appointed Justice of the Peace and *ex officio* Coroner for the colony of British Guiana.
 THORNGOOD, John C., M.D., appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest.
 YELLOWKES, David, M.D., appointed Medical Superintendent to the Glamorganshire County Lunatic Asylum.

POOR-LAW MEDICAL SERVICE.

BRICKWELL, Henry, Esq., to the Warboys District of the St. Ives Union, Huntingdonshire.
 BURKE, Thomas, M.D., to the Scariff Union Workhouse, co. Clara.
 CAMPBELL, Andrew, Esq., to the United Parishes of Kilchrenan and Dalavich, Argyshire.
 HATR, James, M.D., to District No. 5 of the Sudbury Union.
 MACINTOSH, Daniel, M.D., to District No. 3 of the Ely Union.
 MARR, James, L.R.C.P.Ed., to the Thornley District of the Easington Union, Durham.
 MORGAN, John, Esq., to the Northern Division of the Wellington Union, Salop.
 MOURITZ, John, M.D., to the Crossroads District of the Dunfanaghy Union, co. Donegal.
 RUSSELL, John, Esq., to the Scrooby District of the East Retford Union.
 SAMPSON, Francis C., Esq., to the Mountshannon District of the Scariff Union.

ARMY.

ANNESLEY, Surgeon-Major F. C., Royal Engineers, to be Deputy Inspector-General of Hospitals, *vice* S. M. Hadaway.
 FITZGIBBON, Staff-Surgeon R. E., to be Surgeon 60th Foot, *vice* G. W. P. Sparrow.
 FOX, Staff-Surgeon T. W., M.B., to be Surgeon Royal Engineers, *vice* Surgeon-Major F. C. Annesley.

HADAWAY, Deputy Inspector-General S. M., to be Inspector-General of Hospitals, *vice* J. R. Taylor, C.B.
 MILLER, Staff-Surgeon C. M. M., M.D., half-pay, to be Staff-Surgeon, *vice* T. W. Fox, M.B.
 MONTGOMERY, Staff-Surgeon A. G., half-pay, to be Staff-Surgeon, *vice* R. E. FitzGibbon.
 STANLEY, Staff-Assistant-Surgeon St. John, to be Assistant-Surgeon 3rd Dragoon Guards, *vice* R. T. G. Galton.

ROYAL NAVY.

CLARKE, Robert W., Esq., Staff-Surgeon, to the *Saturn*.
 DICK, James N., Esq., Surgeon, to the *Medina*.
 McDERMOTT, W. E., Esq., Acting Assistant-Surgeon, to the *Forte*.
 MACLEOD, William, Esq., Surgeon, to the *Russell*.
 O'TOOLE, Richard B., Esq., Assistant-Surgeon, to the *Egmont*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

COCKEY, E., Esq., to be Assistant-Surgeon 13th Somerset R.V.

To be Honorary Assistant-Surgeons:—

HAYNES, J. C., Esq., 8th Devonshire A.V.
 PYCROFT, G., Esq., 1st Devonshire A.V.

DEATHS.

*AYTON, George, Esq., at Kenilworth, aged 41, on August 8.
 BAGSTER, William, Esq., Surgeon, at Kentish Town, aged 83, on August 3.
 CUMMING. On August 5th, at Chester, aged 77, Lucy Margaret, wife of *George Cumming, M.D.
 GRIFFIN, D., M.D., at Limerick, on August 1.
 GRIFFITH, W. T., Esq., Surgeon, of Ely Place, at Bangor, aged 23, on July 26.
 HUGHES, Thomas H., M.D., at Chester, on August 3.
 LOVELL. On August 7th, at Tottenham, aged 86, Mary Ann, wife of Charles H. Lovell, M.D.
 NORRIS, Thomas, M.D., at Weybridge, aged 74, on July 29.
 PHILLIPS, Charles H., Esq., Surgeon to Her Majesty's Household, at Chelsea, aged 75, on August 8.
 ROWLEY. On August 5th, at Titchfield Terrace, Elizabeth, widow of R. Rowley, M.D.
 SOUTHAM. On July 30th, at Buckingham, Ann, widow of Edward Southam, M.D.
 SPENCER. On August 5, at Eynsham, Oxon, aged 9 months, Ethel, only child of Henry B. Spencer, M.D.
 WHITE, Charles W., Esq., Staff-Surgeon R.N., at Southsea, aged 56, on July 31.
 WHITE, Edward, Esq., Surgeon, of Lamb's Conduit Street, aged 73, on August 9.
 WORKMAN, Octavius, Esq., Surgeon, at Basingstoke, aged 63, on August 2.

THE PRINCE OF WALES has given £100 to the Cornwall Hospital.

NEW HOSPITAL. The erection of a new hospital is contemplated at Coventry.

NEW SOCIETY AT BRADFORD. A society has been formed at Bradford, under the name of the Bradford Medico-Chirurgical Society, to discuss and read papers.

UNIVERSITY COLLEGE HOSPITAL. An unknown lady has forwarded the munificent donation of £500 towards the funds of this institution.

THE ARSENICAL WATER OF WHITEBECK. This water, which our readers will remember was described in our columns by Professor Church three years ago, has just been brought into notice again by Dr. John Day. Its utilisation as a medicine has been suggested.

PRINCE ALFRED'S MEDICAL ATTENDANT. The Queen has directed that a photograph of Prince Alfred should be sent to the relatives of Mr. Kelly, R.N., in Kintyre. A letter from Colonel Phipps was sent with the photograph. Mr. Kelly attended the Prince when suffering from fever at Malta.

PHARMACEUTICAL CONFERENCE. We observe that it is proposed to hold a Pharmaceutical Conference at Newcastle during the meeting of the British Association. If the object be merely the discussion of pharmaceutical politics, it is scarcely fair to make use of the British Association for getting to Newcastle and back at a cheap rate. If the Conference have a scientific object, it would be well to consult the executive of the Association, and form a pharmaceutical sub-section of Section B. (*Chem. News.*)

SURREY COUNTY HOSPITAL. Surrey, with its 830,000 inhabitants, has, up to the present time, had no hospital. On July 31st, however, the ceremony of laying the foundation-stone of a county hospital at Guildford was performed. The hospital is dedicated to the memory of the late Prince Consort; and is intended to afford accommodation for fifty-eight in-patients.

UNIVERSITY OF LONDON. Dr. Carpenter says, that he is directed by the Senate of the University of London "to announce to candidates for the ensuing M.B. Examination, that the examination for honours in surgery will this year be carried on as heretofore; the pass examination alone being modified by the omission of the practical examination in surgery."

AN AMBITIOUS VERDICT. In a late inquest, the coroner having summed up, the jury returned the following verdict, "That the deceased, Edward King, was found dead in the river Scheldt, in the kingdom of Belgium, and that he lost his life from the mortal effects of suffocation caused by drowning, and that he came by his death accidentally and by misfortune."

PETROLEUM. Notwithstanding the report of Dr. Prentiss, the medical officer of health for the borough of Liverpool, to the effect that there is no evidence to prove that petroleum is injurious to health, the inhabitants of Bootle and its neighbourhood are making strong remonstrances on the subject, and some medical men have given it as their opinion, from personal visitation, that a good deal of suffering and sickness have actually been caused by petroleum.

A NEW TUBER. Among the exotics recently introduced into France is a new tuber, brought from Peru by M. Cochet, who has resided twenty years in South America. This new plant has been cultivated for two years in the Jardin d'Acclimatation of the Bois de Boulogne, and has passed two winters without requiring more attention than the potato. Besides its nutritive and medicinal properties, it is very rich in sugar, of a quality superior to that of beet-root. The yield of this plant per hectare will average 150,000 kilogrammes. (Sixty tons per English acre.) In honour of its introducer this valuable root is called *Poire de terre Cochet*.

CALCUTTA MEDICAL BOARD. The Commander-in-Chief has issued most useful rules for the health and conservatism of military cantonments. In every station of the Bengal army there is to be a Board of Health, composed of the senior military, medical, and engineer officers, with the station staff officer, as secretary and executive officer. This Board will receive weekly reports from all the authorities who are responsible for graveyards, drainage, bazars, slaughterhouses, barracks, and hospitals, and will make a monthly report to the divisional commander. Sir Hugh Rose has thus at once, as is his custom, taken a hint from, and stolen march upon, the government of India, which has published a bill to be passed next session.

THE EMPLOYMENT OF WOMEN. The Society for Promoting the Employment of Women has issued a statement and report, with the view of bringing its objects more immediately under the notice of the public. The applications from distressed females which have been laid before the committee show the necessity for new fields of industry being opened up to women. They strongly urge parents to bring up their daughters in some useful business, and with a view to facilitating this, they recommend the perusal of several books and papers relating to the education and employment of women, published by the society. Amongst the occupations suggested as suitable to women are book-keeping, law copying, photography, pattern-staining on furniture, wood engraving, lithographic tracing, music copying, plant preserving, heraldic painting, modelling, watch engraving, etc.

RATHER A HARD PROSECUTION. Martha Ryan was indicted for having feloniously killed and slain Martha Stack. The prisoner, a poor old woman, was called in on the evening of July 7th last by a Mrs. Stack to act as midwife for her. Mrs. Stack was delivered of a female child, which died about five hours and a half afterwards. It seemed that the prisoner cut the umbilical cord, but tied it with a worsted and not a silken ligature; and, according to the evidence of the surgeon, the death of the child resulted from hæmorrhage, caused by the ligature becoming untied. After the child was placed by the side of its mother in bed, it was taken up again by a sister-in-law of Mrs. Stack; and it was just possible, that had not the child been moved the ligature would not have slipped. His lordship directed the jury that if they believed the prisoner had been criminally negligent they should find her guilty of manslaughter. The jury acquitted the prisoner; but thought that she was deserving of censure.

THE WEATHER IN PARIS. The heat in Paris has been of so exceptional a nature as to receive considerable attention from scientific observers. It is very long, according to the observations of one of these gentlemen, since such a day as the 9th inst. has been known in this capital. Between 1 and 3 p.m. the heat was so excessive that the pavement burnt the soles of the feet, and the asphalt yielded to the shoes that pressed it. M. Barral writes that, near the Observatory, the centigrade thermometer, placed in the shade and away from any wall, marked 39 deg. on Sunday, at half-past 2 in the afternoon (102 deg. of Fahrenheit); and at 4 o'clock 36 deg. "It is very rare for the thermometer to rise above 36 deg. cent. in Paris. Since the beginning of the century it only once attained 37.2 deg., on the 18th of August, 1842. The highest temperatures we find on record are 38.4 deg., July 8th, 1793; 39 deg., August 19th, 1763; 39.4 deg., August 14th, 1773; and 40 deg., August 26th, 1765. It is to be observed that, when the thermometer marks 39 deg. in the shade, it is 65 deg. in the sun, according to the observations of Mersier. Thermometrical observations of Paris do not go back beyond 1705. Thus, during the last 158 years, it has probably only once been warmer than it was on Sunday last."

MEDICAL EVIDENCE. The following is reported in the daily journals:—The surgeon stated that he found the woman's face very much bruised, and there was a wound on her temple and one running back to her ear. This was, he said, rather a lacerated wound. Next day he made the *post mortem* examination, and found that the cause of death was extravasation of blood between the membranes of the brain. They were such injuries as were, in his opinion, caused by blows and falls conjointly. As to the lacerated wound, it might have been caused by falling against an iron edge of something like the corner of a fender. Cross-examined. The witness said falls alone would hardly account for all the appearances he observed. Being pressed as to this, he said he did not think that falls would account for them, though they might account for a great deal of them. Pressed still further, he said possibly they might account for all of them. The learned Judge: Consider the question. Looking at all the appearances on the body, can you say that they could all be accounted for by the falls? The witness said he thought that they could not be. The learned Judge observed that it would be well if the witness would attend to the questions before he answered. The witness was further pressed upon this by the prisoner's counsel. He repeated more positively that he believed all the appearances could not be accounted for by falls. Mr. Ribton pressed the witness whether, if he had heard nothing of blows and had heard only of falls, he could have found any appearances inconsistent with falls? The witness said distinctly that he should. Other organs of the body he found healthy, except a slight trace of disease in the

brain; but he should say that the woman was of "slightly intemperate" character. Mr. Ribton: Habitual intemperance, though of a slight character? Witness: Yes. By the learned Judge: Habitually intemperate, but in a slight degree.

THE BRITISH ASSOCIATION. The thirty-third annual meeting of the British Association for the Advancement of Science will commence in Newcastle-on-Tyne on Wednesday, the 26th inst., when Sir W. G. Armstrong will deliver an address as president. The following gentlemen have been chosen presidents of sections:—Mathematical and Physical Science, Mr. W. J. M. Rankine, C.E., LL.D., F.R.S.; Chemical Science, Alexander W. Williamson, Ph.D., F.R.S.; Geology, Mr. W. W. Smyth, M.A., F.R.S.; Zoology and Botany, including Physiology, J. Hutton Balfour, M.D.; Geography and Ethnology, Sir R. I. Murchison, K.C.B.; Economic Science and Statistics, Mr. W. Tite, M.P., F.R.S.; Mechanical Science, Professor Willis, of Cambridge. Papers will be read descriptive of the great branches of industry in this district, such as coal mining, the glass and iron trades, iron ship-building, etc., and the excursions, which will be to the iron district of Cleveland, where the party will be entertained with magnificent hospitality by the iron masters of Middlesbrough; to the lead mines of Mr. W. B. Beaumont, M.P., at Allanheads; to the Northumberland lakes, and the Roman Wall; to South Shields, Sunderland, and to Seaton Delaval, and other large collieries in the district. There will be an extensive exhibition of works of art and science held in the Central Exchange News-room, the Mayor of Newcastle will give a grand concert, and there will be several balls and other gaieties during the week of the Association's meeting. Sir William Armstrong will also make several great gun experiments upon Whitley Sands on one of the days of the meeting.

ACTION FOR SLANDER. LOW v. ELLIOT. In this case, which was lately tried, the plaintiff, Mr. Low, was a dentist in Carlisle. The defendant was a physician, also residing in Carlisle, and living next door neighbour to the plaintiff. It appeared that, being neighbours, they had a quarrel and a lawsuit about a party wall, which action was going on in June last year. During that month the plaintiff had a friend staying at his house, who died of heart-disease, and on June 3rd, his remains were removed to the railway station at Carlisle to go to Penrith. A day or two before this the defendant had had a conversation with a lady, who stated that she had heard that a young lady had died at Mr. Low's, while under chloroform. The defendant had replied that it was very extraordinary if so, as he had heard nothing about it, living next door neighbour. On June 3rd, after this conversation, Dr. Elliot saw a hearse come to the plaintiff's door and have a coffin placed in it. He immediately came to the conclusion that this coffin contained the body of the young lady. He thereupon, being a magistrate and deputy-mayor of the borough, followed the hearse to the railway station, where he saw the coffin on the platform, and then placed in a horse-box. He thereupon told the story he had heard to the guard of the train, and wished to see the plate upon it, and read (as one of the witnesses said), in an "oracular" manner aloud to the crowd, which was then gathering round him on the platform, "John Thomas Lloyd Richards, aged 24," and wondered if the coffin contained a young lady. He further said, that "he was afraid it was a bad case." Mr. Hall stated to the railway officials what the case really was. The defendant, however, still seemed to have talked of the case. A few days after he was written to by the plaintiff's attorney demanding a retraction of his slander and an apology, to which he replied that he was not aware that he had anything to apologise for. The present action was then commenced. The plaintiff proved that in consequence of the circulation of this story his chloroform patients had fallen off from about

fifty a year to six or seven, and that his general business as a dentist had fallen off £1,000 a year. His practice had formerly been worth £2,300 a year, and it was less now by £1,000 a year. The defence urged that the defendant had acted *bonâ fide* and without malice. The jury found a verdict for the plaintiff. Damages, £100.

THE TORQUAY CLIMATE. It will be seen by our meteorological journal that the highest temperature registered in Torquay during the present summer has been 75°. In Nottinghamshire, Mr. Lowe, in writing to the *Times*, quotes the maximum as 87·2, and at Greenwich it was 83·5. The temperature of the Thames, at Greenwich, as given in the Registrar-General's report last week, was as high as 68°; in Torbay the sea-water off the Baths, was only 62°. This is the cause both of the cool summers in Torquay, and the mild winters. An insular, or, in this instance, a peninsular climate, is always more equable than inland. This portion of the coast has, moreover, the great advantage of a south and east aspect, so that all the hot and sultry winds elsewhere, are sea breezes, Torbay and the open sea encircling the little peninsula upon which Torquay is built, on all points of the compass between north-east and west. The influence of the sea, although rather paradoxically, prevents any excess of humidity on this coast. If the dew-point of the air rises above the temperature of the sea (62°), its whole surface acts as a condenser. The maximum difference between the wet and dry bulb self-registering thermometer has been 10°, or nearly 20° above saturation. Not only on the hills, but around the harbour, there is always a breeze; and with the ample shade on this richly-wooded coast, our summer climate is always cool and bracing. We confidently appeal to our readers whether this is not correct. The old prejudice, that because Torquay is mild in the winter it must be hot in summer, is as unsound in fact as in theory. (*Torquay Directory*, July 22nd, 1863.)

ARMY MEDICAL SCHOOL. The following questions were proposed in the examinations at the end of the summer session, 1863, at the Army Medical School, Netley. *A. Written Examination* (three hours allowed for each paper). *I. Military Surgery.* 1. What are the series of symptoms which may be expected to occur when a lung has been penetrated by a rifle-ball? Mention the chief circumstances which may lead to an error in diagnosis as to such an injury having taken place. 2. Name the various kinds of defective vision, independent of those consequent on injury or diseased action, which incapacitate soldiers for the proper use of the rifle. Explain the nature of these defective conditions; show how they are to be distinguished from each other; and state the means of establishing their existence in cases of alleged disability in consequence of them. 3. Describe the systematic inspection of a recruit, and the purpose of each step of the examination. *II. Military Medicine.* 1. Name the endemic diseases of India which chiefly injure the health or destroy the life of the soldiers, giving their classes and orders according to the official system of classification, and a summary of the causes supposed to be most active in their production and propagation. 2. What are the chief diseases of the circulatory system observed by you among soldiers? to what causes do you attribute them? and how far do you deem such causes remediable? 3. In a case of supposed acute hepatitis, give the diagnostic value (a) of pain; (b) of jaundice; (c) of cough, increased respiration, etc.; (d) of enlargement of the liver. *III. Pathology.* Define the nomenclature necessary to be attended to in description of venereal sores. 2. Describe the modes by which elimination of the material in Peyer's patches occurs in cases of typhoid fever. 3. State the main points in the phenomena of typhoid fever which distinguish a case of this disease from a case of typhus. 4. Enumerate the forms of degenera-

tion which occur in the tissues or organs, and state how the existence of such degenerations may be recognised.

iv. *Military Hygiene*. 1. What are the general principles to be attended to in the choice and preparation of sites for barracks? 2. What diseases are supposed to be communicated through the agency of water? How would you examine for organic matter in water? 3. How would you determine the amount and direction of movement of air in a room, and the sufficiency of ventilation? 4. What measures would you adopt if cases of yellow fever were to appear in a barracks in the West Indies? b. *Practical Examination*. i and ii. *Military Surgery and Medicine*. Examination and concise statement of the history, diagnosis, prognosis, effects of treatment, and influence of the disease (or injury), on the fitness for military service, of a case in the surgical, and one in the medical division. (Twenty minutes allowed for the examination, and thirty for the written description.) iii. *Pathology* (three hours). 1. Mention the lesions shown in the preparations numbered 1, 2, 3. Describe (a) their nature; (b) how they have originated; (c) their probable progress; (d) their probable results. 2. Name the parasites contained in the bottles a, b, c, d, e. 3. Describe the lesions shown in the preparations on the two trays before you. 4. Determine the magnifying power of the combination of lenses of the two microscopes on the table. iv. *Hygiene* (three hours). 1 and 2. Chemical examination of water and beer. 3. Microscopical examination of adulterated flour.

THE BLACK DOCTOR AGAIN. The Tribunal of Correctional Police lately tried the Black Doctor, J. H. Vriès, on charges of usurping the title of doctor, and of illegally practising medicine. A doctor named Ebra, who sometimes assisted Vriès in his consultations, was charged, at the same time, with illegally vending medicines to their patients. Among the papers found in the possession of Vriès, and put in as evidence, was the prospectus of a work entitled "Clef de la Nouvelle Alliance," presented to mankind as "the revelation of a new era which shall for ever close the abyss of revolutions, and put an end to all the sufferings, wars, and catastrophes afflicting nations." In answer to questions from the president, Vriès declared that he was merely the assistant of Dr. Ebra, whom he aided with advice, while the latter signed all the prescriptions; he denied having ever sold medicines since his first condemnation, although he still had the drugs in his possession, which were returned to him after his first trial. The evidence, however, clearly proved that, although Dr. Ebra lived in the same house, he was not always present at the consultations, and the fact of supplying patients with medicine was established against both the defendants. One witness proved that Vriès alone had attended a person named Piffetot, and had received from him 2,000 francs, with securities for the payment of 4,000 francs more. After hearing counsel for the defence, the tribunal condemned Vriès to 2,000 francs fine, with six months imprisonment, for illegally practising medicine, and to 500 francs fine for selling medicaments; Ebra was also fined 500 francs for the last named offence, and condemned to pay one-fourth of the expenses of prosecution, the other three-fourths to be paid by Vriès. (*Galvani*.)

VIVISECTIONS IN FRANCE. At the veterinary college of Alfort a wretched horse is periodically given up to a group of students to experimentalise upon. They tie him down and torture him for hours, the operations being graduated in such a manner (this is given on the authority of Dr. Guardia, of the Academy of Medicine) that sixty, and even more, may be performed before death ensues. The same authority declares these tortures perfectly useless, and that the experiments might just as well be made on dead horses. It appears, however, that since Dr. Guardia, with honest indignation, de-

nounced those atrocities, some change for the better has taken place. Dr. Blatin, the vice-president of the French Society for the Protection of Animals, says that the directors of the veterinary schools have limited the experimental studies of their pupils. "At Lyons, to cite one example, the removal of the hoof, which causes frightful suffering, is practised upon the living horse only once by each pupil; on the day when he passes his examination." This is certainly an astonishing stretch of humanity, and it must be admitted that Dr. Blatin is not difficult to mollify. He omits, however, to inform us of the benefit derived from this frightful act of torture. It is well known that in veterinary practice very few serious operations are ever attempted, and that in cases of fractures, bad wounds, and really dangerous affections horses are much more usually shot than operated upon.

GLORIOUS WAR! I have just returned from Gettysburg. The estimated number of wounded there was, on Monday, July 7, 20,000 Union and rebel soldiers. They have diminished daily from 1,000 to 1,200 in number by sending the "walking cases" (men slightly wounded, or only in the upper extremities and with flesh wounds) to Baltimore and Washington. About half are under canvass in the various corps hospitals, the rest in churches, barns, and private houses in and around Gettysburg. The speed of General Meade's movements had made a provision against the consequences of so terrible a battle impossible. Medical stores, and even food, were not and could not be at hand. The neighbouring country had been stripped bare, first by the rebel army and then by our own. Moreover, the splendid victory of our troops made every available soldier necessary in the pursuit of the flying, but not routed or demoralised, and still dangerous foe. Only one-third of the surgeons, ambulances, and wagons could be left from each corps in care of our wounded, and no detail of well men to nurse them; add 6,000 rebel wounded, deserted by all but five of their own surgeons, and one can see the inevitable misery of the situation. There were most inadequate supplies of coarse food, and none of suitable and delicate food within the reach of the hospitals. Beef and hard tack were the only things in tolerable abundance. Transportation for the wounded from worse to better quarters, and of supplies, was necessarily very scarce, and was a chief source of distress. The roads were thronged with wounded men, here on canes and there on crutches, not seldom with amputated arms and heads still bleeding, making their way on foot from the corps hospitals, two, three, and four miles, to the dépôt. At the hospitals themselves, at first, the spectacle was intensely wretched. Men with both legs shot off, shot in the eye, the mouth, both hands gone, or one arm lost, were lying in rows that seemed pitifully long, and in wonderful patience, fortitude, and patriotic pride facing their sufferings. The rebels, as was just, had to wait their turn for having their wounds dressed or their limbs amputated till the Union men had been cared for; then they were treated with equal kindness and attention. Many after six days were looking forward, as to an unspeakable blessing, for the amputation of their shattered limbs. The terrible destitution of many of the rebels will not bear description. It was too horrible for recital. (*New York paper*)

AN OSSIFEROUS CAVERN IN ARGYLSHIRE. A cavern, containing osseous remains of men and of lower animals, has lately been discovered on the property of John Malcolm, Esq., of Paltalloch. The cavern has been fully explored, and its contents carefully collected by the Rev. Messrs. Mapleton and Macbride. These contents consist of the remains of men, of other animals, and shells of edible shellfish. The only article of manufacture found in it was a small celt, a flint flake; and the only domestic utensil was a scallop shell, or *pecten maximus*—the shell used by the ancient Celts as a drinking vessel. The cavern was evidently used as a place of resi-

dence, for beneath the cave, stuff, or *débris*, were found ashes, bits of charred wood, and bones, a flint pebble for striking fire, and stones which, from their form and position, seem to have served for seats. When first discovered, the human remains were supposed to have been those of persons who had fled there for shelter, when the adjacent country was laid waste by fire and sword during the ruthless raid of Alister McColl Citto. The absence, however, of metal weapons and culinary vessels—both which were of universal use in the days of this scourge of Argyleshire, and which undoubtedly would have been conveyed by the refugees to their place of concealment—and the presence of celts and scallop shells, seem to disprove this opinion, and to point to a much higher antiquity for its inhabitants. What seems to confirm this opinion is the fact that many of the bones, teeth, and shells were as firmly embedded in a calcareous matrix as are the fossil remains in the lias and carboniferous limestones. Mr. Macbride is engaged in examining the contents, and preparing a report on the subject. (*Glasgow Herald*.)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1½ P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—August 13, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	Boys... 979	1909
	(Girls... 990)	1326
Average of corresponding weeks 1853-62	1506	1256

Barometer:
Highest (Sun.) 29.067; lowest (Sat.) 29.077; mean, 29.851.

Thermometer:
Highest in sun—extremes (Mon.) 115.7 degs.; (Fri.) 109.5 degs.
In shade—highest (Sun.) 84.9 degs.; lowest (Wed.) 50.1 degs.
Mean—55.1 degrees; difference from mean of 43 yrs. 4.5 degs.
Range—during week, 34.8 degrees; mean daily, 21.3 degrees.
Mean humidity of air (saturation)=100, 70.
Mean direction of wind, S.W.—Rain in inches, 0.60.

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A CORRESPONDENT asks why, in the advertising appeal made to the public in the daily journals on behalf of the Cancer Hospital, the name and address of the surgical doctor to it should appear immediately over the name of the bankers, as follows:—

"Cancer Hospital.—The Committee urgently appeal to the public for support, to enable them to meet the weekly expenses incurred by supplying generous diet, expensive medicines, etc."

"Principal surgeon—Wm. Marsden, Esq., M.D., 65, Lincoln's Inn Fields."

"Bankers—Messrs. Coutts and Co., Strand."

We suppose Surgeon Marsden, M.D., allows his name to go in the advertisement on principles of the purest philanthropy. He is a great Cancer Doctor, and therefore gives the Hospital the advantage and prestige which are to be had from the use of his name.

F. K.—The death of Sir Cresswell Cresswell may perhaps recall to the mind of some of your readers the death of Dr. Pereira. Dr. Pereira (in excellent health, we believe, at the time) slipped, and ruptured the tendo Achillis; and, whilst undergoing the rest necessary for his cure, suddenly fainted, and died, when turning over in bed. Sir C. Cresswell ruptured his patella, and also suddenly fainted, and died, after some slight exertion.

MEDICAL STATISTICS.—SIR: As bearing on the question of medical statistics, and an old observer of the late Dr. Todd's practice in fever and pneumonia, will you permit me to remind Dr. Mayo, that the "large statistics" which he says are wanted, have been already published, though somewhat to the discredit of Dr. Todd's practice, from what appears to be a faulty mode of interpretation, comparing equals to unequals. Let us remember also that a well known weekly editor boasts that he largely bleeds in typhus.

Nearly all our confusion in the kindred subject of anæsthetics or chloroform deaths, arises from erroneous induction as to cardiac syncope, or taking a *post hoc* for a *propter hoc*; and so at present stands this all-important question of these "large statistics", as is obvious from the writings of Dr. Murchison and Dr. Beale. Patients, in fact, get well *malgré* our brandy or bleeding. If anything appears clear to an observant man after a dozen years going from one hospital to another, especially in surgical wards, it is this, and the small effect produced (especially in weak and nervous patients) by these twenty-four ounces of brandy in twenty-four hours. "The real physician is the one who cures," says Brossais; "the observations which do not teach how to cure, are those of a naturalist." The brandy-doctors certainly cure their patients of pneumonia or typhus. The admirers of Andral and of the men who bleed largely in typhus, are better naturalists and admirers of pathological bottles and great guns at pathological societies. We do not want "large statistics" so much as a proper examination and fair coordination of those already published; when it will be seen how potent is the *vis medicatrix nature*, and not so potent (at any rate, for mischief) the twenty-four ounces of brandy.

I am, etc. CHARLES KIDD, M.D.

Sackville Street, July 27th, 1863.

P.S.—One of the leading surgeons at St. Bartholomew's has, over a series of years, used brandy quite as much, if not more, than the late Dr. Todd. Seven pipes of wine is his quota now for his ward, where it used to be half a pipe. Brandy is also prescribed in immense quantities. I have watched the effect with much interest. Brandy, chloroform, ether, all enter the blood, and may be re-distilled from it; but what shall we say of medical guides who say for party purposes that they do not enter the blood?

DR. E. CRISP requests us to insert the following correspondence:—
To the President and General Council of Medical Education.

Gentlemen: I have forwarded to each of you a pamphlet respecting the Carmichael and Harley prizes, believing, as I have stated in my printed letter, that one of your functions is to regulate matters connected with education and the progress of medical science. The particulars relating to these prizes are fully given in the pamphlet. In the one instance, three gentlemen (one of them a colleague) awarded a prize to Dr. Harley, who had not complied with any of the injunctions required by the Council of the College of Surgeons; and in the other, the Council of the Dublin College of Surgeons deputed three of their members to decide a matter, that Mr. Carmichael directed by his will should be left to the decision of all the Councilors. The Council of this College, moreover, advertised that prizes of £200 and £100 would be given to the best and second best essays on Medical Reform (without reservation), as directed by Mr. Carmichael; and, although there were several candidates, the award was illegally withheld. I shall take the liberty hereafter of placing before you other matters relating to corporate illegalities, which, I believe, specially come within your province. In the meantime, I respectfully beg of you to investigate the grievances of which I complain, trusting that you will believe that my motive in making this appeal is neither a vindictive nor a pecuniary one.

I am, gentlemen, your obedient servant,

EDWARDS CRISP.

June 15, 1863.

Sir: I beg to inform you that your memorial, and the pamphlet which accompanied it, have been submitted to the General Council during their recent session. But the Council found themselves obliged to pass the following resolution:—"That the Council is of opinion that the memorial presented by Dr. Edwards Crisp, respecting the Carmichael prizes, is not within the powers of the Council, as limited by the Medical Act; and the Council, therefore, decline to enter on its consideration."

I am, sir, your obedient servant,

Dr. Crisp.

FRAAS. HAWKINS.

COMMUNICATIONS have been received from:—Dr. THOMAS SKINNER; Dr. T. J. WALKER; Dr. M. MACKENZIE; Dr. LOYD MARSH; Dr. O'BRYEN; Mr. CAPES; Mr. T. J. DYKE; RUSTICUS EXPECTANS; Mr. T. M. STONE; Mr. G. E. FORMAN; Dr. HYDE SALTER; Dr. GOLDEN; Mr. PAGET; Dr. SYMONDS; Mr. JOHN RUSSELL; Dr. SANKEY; Mr. HAYNES WALTON; Mr. JAMES ROSS; and A MEMBER.

CHLORODYNE

"INVENTED AND DISCOVERED IN 1844 BY RICHARD FREEMAN."

(Extract from Affidavit made before S. C. WARD, Esq., Chancery Record Office, Chancery Lane, London, June 16th, 1862.)

The Inventor begs to thank the Medical Profession for the liberal support he receives from them, and to assure those who have not yet tried his Chlorodyne that it is superior to any other maker's, being more certain and more lasting in its effects; and the low price which he charges for it allows the poorest sufferer to enjoy its extraordinary beneficial influence. The immense demand for it by the Profession is a convincing proof that they find it a most valuable therapeutical agent. The following are a few out of many voluntary Testimonials:—

From W. VESALIUS PETTIGREW, M.D., Hon. F.R.C.S.Eng., formerly Lecturer upon Anatomy and Physiology at the St. George's School of Medicine.

"I have had the opportunity of trying the effects of Mr. Freeman's Chlorodyne, and find it an excellent Anodyne and Antispasmodic medicine."

From H. J. O'DONNELL, M.R.C.S.E. & L. M. etc., etc., Albert Terrace, London Road, S.

"I can with much confidence bear testimony to the efficacy of Mr. Freeman's Chlorodyne as a Sedative and Antispasmodic, having used it for some years in Colic, Neuralgia, Phthisis, and Asthma. I daily administer it in after-pains, and in all cases find it infallible. It is the most valuable medicine we have in Labour cases. I find, since I have used it, the pains seldom or ever exceed the third day, while with the former remedies my patients suffered eight or nine days. In fact, I cannot speak too highly of it."

From F. W. HOOPER, M.D., M.R.C.S.Eng., etc., etc., Medical Officer, Christ Church District, Camberwell.

"I have much pleasure in stating, that after a sufficient trial of Mr. Freeman's Chlorodyne, I am fully persuaded that it is superior to any preparation of the kind, and, from its moderate price, is a great boon to the suffering poor, who daily acknowledge its salutary benefit."

From C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, etc., etc.

"Having been in the habit of using Mr. Freeman's Chlorodyne for some time past, I have much pleasure in stating that it has never failed to have the desired effect in whatever case it has been administered."

Manufactured by RICHARD FREEMAN Pharmaceutist, Kennington Road, London, S.;

And Sold by all Wholesale Houses, in bottles, 1 oz., 1s. 6d.; 4 oz., 5s.; and 8 oz., 10s. each.

Pulvis Jacobi ver, Newbery

Is the ORIGINAL & GENUINE, was ESTABLISHED A.D. 1746,

And is Prescribed, "by the highest authorities, for Fevers, Ague, Rheumatism, Colds, Influenza, &c. &c.

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

Prices for Dispensing—1 oz., 9s.; $\frac{1}{4}$ oz., 3s. 4d.

TOWLE'S CHLORODYNE.

Dose, 5 to 20 Drops.

CAUTION.—For the convenience and safety of prescribing Chlorodyne, in combination with other ingredients, so as to avoid decomposition (a result known to have taken place) through the use of SECRET COMPOUNDS, the Profession is directed to the following component parts in his preparation:—

CHLOROFORMYL
ETHER.
OL MENTH. PIP.

ACID. PERCHLOR.
TINCT. CANNABIS INDICÆ.
ACID. HYDROCYAN.

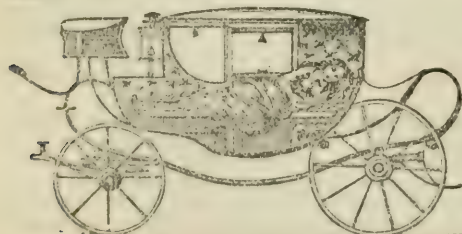
TINCT. CAPSICI.
MORPHIA.
THEBIAÇA.

The proportion of Morphia— $\frac{3}{4}$ gr. in f. 3i. Dose—Five to twenty Drops.

Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J.P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession."

Sold in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz., and 8 oz., 1s. per fluid oz. Sole Manufacturer and Proprietor, A. P. TOWLE, Chemist, etc., Ardwick, Manchester. May be had from Barclay and Son, Farringdon Street; or through any Wholesale House.

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Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS: LECTURER ON
PHYSIOLOGY AND PATHOLOGY AT CHARING CROSS
HOSPITAL MEDICAL SCHOOL: AND ASSISTANT-
PHYSICIAN TO THE HOSPITAL.

LECTURE VIII.—ON THE DIAGNOSIS OF DROPSIES.

Importance of the Separate Study of Symptoms. Dropsy a Symptom. Parenchymatous and Cavitary Dropsy. Accumulation not essential to Dropsy. Dropsical Fluxes. Scheme of the Varieties of Dropsy. 1. General Mechanical Dropsy. 2. Local Mechanical Dropsy. 3. Portal Dropsy. 4. Dropsy of Cutaneous Asphyxial Congestion. 5. Dropsy of Chronic Inflammatory Hyperæmia. 6. Dropsy of Watery Blood.

GENTLEMEN,—There are several cases of dropsy at the present time in the hospital—two of renal dropsy, two of ascites, one of dropsy of the lower extremities from lung-disease, one of similar dropsy from heart-disease, and one of dropsy of the lower extremities in which neither lung- nor heart-disease exists; and I am anxious to take this opportunity of bringing the subject of dropsy before you in its general bearings.

I think the plan of eliminating some symptom, which several cases, or diseases, possess in common, and considering it by itself apart, has these two advantages—that, in the first place, it brings strikingly before us the points of difference and contrast which the common symptom presents, according as it occurs in one disease or another, and so quickens our perception of the diagnostic value of the different phases and varieties of the common symptom; and secondly, it enables us to “abstract” the essential condition of the symptom, and thus to recognise the presence of the essential condition wherever we find the symptom.

Thus, the comparison of the different forms of dropsy, such as we see it in cardiac, renal, liver, or other disease, reveals to us certain individual peculiarities in each form, and thus imparts to the dropsy itself a diagnostic value in any case in which it may occur. We know that the dropsy of such a disease has such and such characters; when, therefore, we see a dropsy with those characters we know it is the dropsy of that disease. Again, the study of dropsy, in the abstract, enables us to see that the one essential condition on which it depends, whatever may be the disease that gives rise to it, is a state of hypertension of the smaller blood-vessels. It, therefore, acquires this special indicativeness, and whenever we see it we know that this one essential condition exists, and we judge of our patient's state accordingly.

I therefore strongly recommend this method of the study of symptoms to you, and am convinced that unless you study them in this way you will fail to get all the information out of symptoms that they are capable of yielding.

Dropsy, or hydropsy, as it used more correctly to be called, is, as you know, not a disease, but a symptom merely—a symptom of diseases differing most widely from each other. But in former times it was considered a substantive disease, and people used to be said to be sick of the dropsy, and to die of the dropsy, and a most fatal disease it was considered, (the true reason of which we shall see presently, when we come to consider its immediate mechanism). But dropsy is one of those morbid states that the progress of medicine has transferred from the category of diseases to that of symptoms, and those who a hundred years ago died of dropsy now die of heart-disease, or kidney-disease, or liver-disease.

You know that dropsy is an anatomical condition, and that it essentially consists in the accumulation of serum in certain tissues or cavities in which it ought not so to accumulate. When I say “tissues or cavities”, I use language not critically correct, and speak of an apparent and not real difference; for dropsy can never accumulate except in cavities; and the difference between that which manifestly accumulates in a cavity, and that which apparently accumulates in a tissue, is, that in the one case the cavity is large, and in the other the cavities are small; no tissue that does not possess cavities or interspaces is capable of being the seat of dropsy. Thus, in dropsy of the subcutaneous areolar tissue, the seat of the serous accumulation is in the communicating areolæ or microscopical chambers of that tissue; and in dropsy of the lungs (*œdema pulmonum*) the serum occupies the cavities of the interlobular areolar tissue and the air-cells. Still, the division of dropsies into “parenchymatous” and “cavitary” is not a bad one; it is useful and convenient; and, if we bear in mind what I have just said, is not open to the objection of implying anything erroneous.

There is one fact that I am anxious to impress upon you,—that the conditions of dropsy may be present, and the process that forms dropsies actually going on, and yet no dropsy may result, because, from the anatomical peculiarities of the part, no accumulation can take place—because the anatomical arrangements are such that as soon as the serum is poured out from the vessels it is discharged on a free or quasi-free surface. For example, we often see, in cases in which the circulation to, or through, the liver is obstructed, and in which, as a result of this, ascites has been developed, that there occur occasional, and sometimes almost periodic, serous defluxions from the bowels. The explanation of this phenomenon is this: the obstruction at the portal circulation produces a state of hypertension at all points behind it; that is, throughout the venous portion of the circulation of all the abdominal viscera, as far back as the capillaries. The result of this hypertension is that serous transudation takes place in all the smaller vessels—minute veins and capillaries—which relieve themselves in the first instance, and often only, on the side where there is least resistance, namely into the free cavity of the peritoneum. Sometimes, however, in addition to this, they relieve themselves through the mucous membrane of the alimentary tube, and the serum thus poured into the bowel is discharged by stool. But such a serous discharge is not a whit the less a dropsical effusion because it is poured out on a free surface; it is exactly of the same significance, due

to the same cause, and points to the same state of the abdominal circulation, as the accumulation in the peritoneum. Just in the same way, albuminuria in heart-disease is simply dropsy occurring at the kidney; it is the exact correlative phenomenon of the oedema of the lower extremities. In the legs, the effused serum finds itself in a network of chambers, shut in by the skin, from which it cannot escape, and in which it, therefore, accumulates; while, in the kidney, the serum finds itself in a system of tubes terminating by open mouths in the calyces, and down these tubes, mingling with the water and other elements of the urine, it trickles, and so into the calyces, pelvis of the kidney, ureter, bladder: the urine is voided; we examine it, and by the ordinary re-agents render visible the albumen of the serum, and we call it albuminuria. But it no more points to the kidneys than the oedema points to the legs; still less does it imply anything amiss with the urine. It simply says that all the vessels tributary to the inferior cava feel the obstruction at the heart. That the serum is voided with an excretion instead of shut up in a tissue is a mere accident of anatomy; the essential condition is dropsy at the kidney.

In such an example as the one I have just cited there naturally exists the same state of things as exists in an oedematous leg after acupuncture has been performed on it. In such a leg, the swelling goes down, and as long as the acupuncture wounds are open, does not re-appear; but the condition of the circulation is just what it was before—there is the same vascular tension and the same dropsy-forming transudation, as is shown by the constant drain from the orifices; and, as far as the diagnostic and prognostic indications of dropsy go, the state of things is just the same as if the legs were the seat of any amount of oedema.

Remember then that such serous discharges as I have spoken of possess the significance of dropsy, and nothing more.

The best arrangement of the varieties of dropsy that I have been able to devise, is what you see in

Varieties of dropsy.	Symptoms.	Diseases in which they occur.
Mechanical.		
1. General....	Subcutaneous oedema, beginning at the feet, and becoming more and more universal. Dropsy of cavities at last. <i>Dyspnoea</i> .	Chronic bronchitis. Valvular disease of the heart.
2. Local.....	Partial subcutaneous dropsy of upper extremities, or lower. <i>Other parts perfectly free. Dyspnoea not necessarily present.</i>	Abdominal tumours. Pressure of aneurism on sup. cava. Phlegmasia dolens.
3. Portal dropsy ..	Ascites. No dyspnoea. No other dropsy. Symptoms of liver disease generally present.	Cirrhosis.
4. Dropsy of cutaneous asphyxial congestion	Universal subcutaneous oedema, beginning very often at the face. No dyspnoea necessarily present(?). Albuminuria.	Bright's disease. Acute dropsy from cold, and after scarlatina.
5. Dropsy of chronic mitamatory hyperemia	The insidious accumulation of fluid in a serous cavity, without notable pain.	Hydrothorax. Strumous ascites of children. Hydrocele, etc.
6. Dropsy of watery blood	Pallor; breathlessness on exertion; faintness; palpitation; vertigo; Amenorrhoea: face and upper extremities puff; lower extremities oedematous.	Chlorosis. Flooding, etc.

for I have been obliged to make, in one point, a sacrifice of systematic exactness for the sake of clearness and utility, as I shall presently explain; still it is the best I have to offer you. It is on the correct recognition of the characteristics of these varieties that the diagnosis of dropsy depends, and, therefore, such a table as this may be said to represent the whole subject of the diagnosis of dropsy.

The first two varieties of dropsy, you see, I call "mechanical"; the rest, not. I do this in obedience to general custom. But it is a distinction that does not represent an essential difference. Some forms of the so-called mechanical dropsies are not mechanical, in the way in which they are produced, than others that are not so named. The dropsy of heart-disease and chronic bronchitis are both called mechanical dropsies, and depend, one on an impediment established at the heart, the other on an impediment established at the lungs; which impediment, in each case, retrogrades upon the systemic venous system, and, ultimately reaching the peripheral vessels, gives rise to transudation and dropsy. But the universal anasarca of acute dropsy from exposure to cold is just as mechanical in its cause, and just as dependent on an impediment established at a certain part of the circulation, as the dropsy of chronic bronchitis. The one is due to stasis at the capillaries of the lungs, the other to stasis at the capillaries of the skin: in the one, the impediment retrogrades a long way before it reaches the point where it produces the dropsy; in the other, the dropsical transudation takes place immediately behind, one might almost say at, the point of arrest. But both are equally mechanical; both are dependent on an asphyxial capillary stasis—the one of the lungs, the other of the skin.

A far better, or rather a far more exact, arrangement would be to divide dropsies into those that are produced by an obstruction placed on some main vessel, and those that are due to peripheral or capillary impediment. Of the first class would be the dropsy from heart-disease, that from the pressure of aneurismal or other tumour on the superior or inferior cava, the ascites from pressure on the *vena portæ*, the oedema of a leg from plugging of its main vein, etc. Of the second class would be the dropsy of chronic bronchitis, the ascites of cirrhosis, the anasarca of acute dropsy, the serous collections resulting from hyperæmias of an inflammatory type, as hydrothorax, chronic hydrocephalus, the ascites of struma. But, though this would be the more exact, I think the arrangement I have adopted is the more practically useful, because it is based, not on etiology, but on a natural grouping of well-marked clinical phenomena, and is therefore a diagnostic arrangement. Let me now give you a short running commentary on my table.

The first variety—"General Mechanical"—is the commonest of all forms of dropsy, and is that which attends the closing scene of so many cases of heart and lung disease. It is always chronic, has always been preceded by the well-marked symptoms of thoracic disease, especially is dyspnoea sure to have been present, and generally urgent; if due to heart-disease, the dyspnoea may have been much less marked than if due to lung-disease. But it is impossible for either heart or lung disease to generate dropsy without the intervention of dyspnoea; *ergo*, any case of dropsy in which all trace of dyspnoea is,

this table. It does not perfectly satisfy my mind;

and has been, clearly absent, is not dropsy of this kind—is not dependent on heart or lung disease. This form of dropsy is, in its distribution, more affected by gravitation than any other; it always begins at the feet, and change of position for a single night will throw it from one arm and hand to the other; it attains a development more enormous than any other form, and in its last stages is frequently complicated with local purpurous hæmorrhage.

The second variety—"Local Mechanical"—is characterised by its partial distribution, and by that distribution corresponding with some separate segment of the venous system, and not being affected by gravitation; all other parts of the body being perfectly free from any tendency to dropsy. We see examples of it in œdema of the legs from pressure of an abdominal tumour on the inferior cava, of one leg from that of a pelvic tumour on one of the iliacs, in the swollen face and arms from pressure of an aneurismal or other tumour on the superior cava, in local œdema from venous plugging, etc. Dyspnoea may be present, or it may not. The great characteristic of this dropsy is its partialness and immobility, and the perfect freedom of all other parts from any trace of dropsical tendency.

Variety the third—"Portal Dropsy"—is no doubt the weak point of my scheme, for it includes dropsies that might correctly fall under other heads, and it unites those that are essentially distinct. For example, ascites from pressure of a tumour on the portal vein as it enters the liver is "local mechanical dropsy", and should come under variety the second; and such dropsy has no more alliance with ascites dependent on cirrhosis than dropsy from an intrathoracic tumour has with dropsy from chronic bronchitis;—the one is dropsy from pressure on a main vessel, the other from multitudinous capillary arrest. Still, the one characteristic and essential symptom—ascites, unattended with other dropsy—is so striking a clinical phenomenon, and having such certain and precise diagnostic indications, that I have thought it well to erect this form of dropsy into a separate variety. Its characteristic signs are the well known physical signs of ascites—general abdominal distension with a material freely obeying the laws of gravitation, dull at the most dependent parts, resonant at the top, and imparting the characteristic thrill and wave on percussion. If such a condition is present, and all other dropsical symptoms are absent, we may be sure, whether there are signs of liver-disease or not, that the one thing pointed to is portal impediment of some kind or other.

The fourth variety—dropsy from what I call "*Cutaneous Asphyxial Congestion*"—characterises a perfectly natural group of cases. It is generally sudden in its appearance, often the first warning of illness, is universal in its distribution, is affected but very slightly by gravitation, often appears first in the face, is frequently quite unaccompanied by dyspnoea or cough, is always attended with albuminuria, sometimes with hæmaturia, and has generally been preceded by some cause of suppression, or morbid condition, of the function of the skin. We see examples of such dropsy in the dropsy after scarlatina, in the different forms of Bright's disease, and in simple acute dropsy from exposure to cold. With regard to the theory of this dropsy, I will at present say no more than that I believe it depends on a state of the

capillaries of the skin similar to that of the capillaries of the lungs in asphyxia—a state of congestion or stasis from the blood not being depurated of that of which it ought to be freed in that particular capillary system, and therefore not in a state to leave that capillary system.

I have my doubts as to the legitimacy of calling the dropsies of the fifth variety true dropsies; they doubtless pass by imperceptible degrees into cases of genuine serous inflammation—cases of true pleurisy, peritonitis, etc. Still they are often so free from all symptoms of inflammation, and are so closely allied to non-inflammatory dropsies, that it would be difficult to draw the line between them. Hydrocele may be taken as a good example of this kind of dropsy, and that peculiar insidious form of hydrothorax in which the first thing that makes the patient aware that anything ails him is the discovery that he has a pleura full of fluid. The distinctive features of dropsy of this kind are—that it is always cavity (necessarily), affecting some single serous sac; that it occurs apparently spontaneously; and that there is a clear absence of all those conditions to which secondary or symptomatic dropsy is attributable.

The sixth variety is the *Dropsy of Extreme Anæmia*. We sometimes see it in chlorosis, and we especially see it after profuse hæmorrhages. I think I have seen it the most marked in women who have flooded. It is a form of dropsy vastly commoner in women than in men—indeed, it is very rare to see it in men; but I have seen it in two or three cases in men who have lost a great deal of blood from hæmorrhoids. It was conspicuously marked in the case of Thos. Spurratt, who is now lying in bed No. 5 of the Clinical Ward, and who, you know, has lost an incalculable quantity of blood from chronic ulceration of the lower bowel. His face was so puffy when he came into the hospital, that one could not resist the impression that he was suffering from renal dropsy. We found, however, that such was not the case. He has had no bleeding for five weeks, and the puffing of the face is almost gone. As anæmia, to induce this dropsy, must be extreme, the signs of anæmia are so strongly marked as to enable one to identify it at once. Moreover, except when it arises from chlorosis, there is almost always the antecedent circumstance of the hæmorrhage to guide one; and there is also, as in the preceding variety, the absence of all the ordinary causes of dropsy—there is no heart-disease, no lung-disease, no liver-disease, no kidney-disease. This dropsy is never cavity.

Let us now proceed to the analysis of the cases of dropsy at present in the hospital, and see how we shall be able to diagnose each case on the strength of the peculiar features of the dropsy that characterises it.

[To be concluded.]

VACANCIES. The following appointments are vacant; Assistant-physician at King's College Hospital; acting-physician and acting-surgeon to the Birmingham and Midland Free Hospital for Sick Children; two surgeons to the Islington Dispensary; medical officer and general superintendent to the Dundee Royal Infirmary; resident medical officer to the Leeds Fever Hospital; house-surgeon to the West Norfolk and Lynn Hospital; house-surgeon to the Chester General Infirmary; assistant-surgeon to University College Hospital; and physician's assistant and junior house-surgeon to the Manchester Royal Infirmary and Dispensary.

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

ON THE OPERATION OF TRANSFUSION IN OBSTETRIC PRACTICE :

WITH DESCRIPTION OF A MORE CONVENIENT
TRANSFUSION-APPARATUS.

By GRAHAM HENWITT, M.D., M.R.C.P.; Physician to the British Lying-in Hospital; Lecturer on Midwifery and Diseases of Women and Children at St. Mary's Hospital Medical School.

THE application of the operation of transfusion in the treatment of the hæmorrhages incident to pregnancy and the puerperal state appears to require a closer attention than it has yet received by the profession at large; for, notwithstanding the fact that much has been said and written on the subject by Dr. Blundell, Dr. Waller, Dr. Routh, Mr. Soden, and others, the operation is very rarely practised or attempted.

Observation and reflection have convinced me that the subject is one deserving an earnest and careful consideration, and that good results are to be anticipated therefrom; and, impressed with this conviction, I venture to invite the criticism of those whom I have the honour of addressing on the remarks now to be offered.

From data furnished by the Reports of the Registrar-General, it appears that, in England and Wales, the deaths from accidents during childbirth amount to about nine a day, taking the average of several years; and it further appears that, of these nine women who perish from this cause, one dies from the effects of flooding attendant on delivery. This will give a sufficiently correct idea of the frequency with which treatment of the best kind is urgently required to avert impending death from uterine hæmorrhage. Transfusion is not the only remedy in these dangerous cases of flooding; and it is probable that the number of instances in which the patient is brought to a state of imminent danger from profuse loss of blood during or after parturition will, with advancing knowledge, be progressively diminished. But, even under the most favourable circumstances, cases must from time to time occur in which women will fall into this perilous condition, and in which all remedies short of transfusion will fail. In a few cases, danger from flooding seems inevitable under the best treatment. In a few, the danger occurs from absence of good medical treatment; the patient passing in a very few minutes, and before assistance can be obtained, from a state of apparent safety to one of the extremest danger. In short, cases must and will occur in which, from one cause or other, the only hope for the patient is the application of extraordinary remedies, such as transfusion of blood.

In the face of these facts, and allowing due weight to the consideration that all cases of flooding are not cases for transfusion, it is matter for surprise that the operation is not more frequently had recourse to.

The circumstances which lie in the way of a more general adoption of transfusion are the following:—

1. A disbelief in the efficacy of the operation; and the feeling which prevails with some, that the transfusion may fail to do good.

2. Admitting the utility of the operation, the difficulty

of deciding in particular cases as to the time for its performance; in other words, the indications for the operation.

3. The difficulty of performing the operation, which is dependent on—

a. Want of means speedily and immediately accessible for performing the operation with the necessary degree of nicety.

b. Want of previous study of the steps and details of the operation.

1. *The Disbelief or Distrust in the Efficacy of the Operation.* It is undoubtedly the fact that by many practitioners the operation of transfusion is looked upon with a feeling which, if not one of absolute aversion, is one of indifference, and by whom the operation is never attempted; it being considered that, if the patient cannot be saved by other means, transfusion is not likely to do much good. In other quarters, the argument to be encountered is this,—that in cases where the operation has been followed by the restoration of the patient, the restoration might or would have been effected by other means. Instances may be cited, it is true, pretty numerous, to show that patients in whom the vital powers have been reduced to the very lowest ebb, and who have been expected every moment to cease to exist, have nevertheless been saved by the more ordinary restorative measures. But if it be argued, on the one hand, that many cases recover from an apparently eminently dangerous state without transfusion, it can be answered, that many cases do not so recover; and further, that very many patients have been restored by transfusion, who have presented symptoms of the very worst possible kind at the time the operation was undertaken. Lastly, it can be shown that there has been a perfect identity between the symptoms of many untransfused patients just prior to actual dissolution, and those of the patients who, having been thus operated on, have afterwards recovered.

For reasons which I need hardly allude to, it is exceedingly difficult to institute a just comparison between the two classes of cases: danger to the patient is not always indicated in the same way, nor is extreme danger produced by the same amount of loss of blood in all patients; and it is not, therefore, a thing capable of absolute demonstration, that the cases which have recovered after transfusion could not have been restored by other measures. It is, however, as certain as in such a matter it can well be, that in many of the transfusion recovery cases, recovery would not have taken place without recourse to the procedure in question. I believe that it is admitted, even by those who look the most coldly on the operation, that it has saved some patients.

The most recent collection of cases of transfusion in obstetric practice is that by Professor Martin of Berlin, published in 1859 (*Ueber die Transfusion bei Blutungen Neuentbündener*, Berlin). Of 57 cases of transfusion tabulated by this writer, 43 were successful. In 7 of the 14 unsuccessful cases, however, death took place either some days later from return of hæmorrhage, or from phlebitis or other causes; and there are only 7 of the 14 unsuccessful cases which can be fairly termed unsuccessful so far as the transfusion was concerned. Thus, out of 50 cases, we get 43 cures—a proportion of 86 per cent. The valuable observations of Dr. Blundell, made several years ago; the cases of Dr. Waller; the collection of cases and important remarks on transfusion by Mr. Soden of Bath; the experiments more recently made by Dr. Brown-Séquard (*Journ. de Phys.*, tom. i, p. 666) on the effects of transfusion of blood in revivifying temporarily animals already dead from diseases such as peritonitis,—these facts and observations contain a mass of evidence directly and indirectly proving the efficacy and the reliability of transfusion, as a remedy in cases of threatened death from loss of blood,

which it is impossible to withstand. It appears, indeed, to be a therapeutic means of the very highest value; and the cases most suited for it, and which are most likely to be benefited by it, are precisely those cases of profuse hæmorrhage which occasionally come under the notice of obstetric practitioners, where the patient is dying simply and purely from want of sufficient blood to carry on the vital actions.

It is not to be expected that transfusion will benefit all the cases in which it is nevertheless legitimately applied. The vital powers may be too prostrated to allow of recovery; and in a few cases disappointment must, therefore, be expected. But the facts on record, and which I have but just quoted, lead us to expect that eight out of every ten cases, otherwise hopeless, may be expected to be saved by timely and successful performance of the operation.

2. The next circumstance to be considered is a very important one; viz., *the Difficulty of deciding what is the Proper Time for the Operation*. It is probable that the performance of the operation would become much more frequent if this difficulty could be removed or lessened. It appears, therefore, very desirable that some definite rules should be laid down respecting the indications for the operation.

A rule which is a good one, and to which there are only one or two exceptions, is, that the operation is not applicable unless the hæmorrhage and the liability to hæmorrhage shall have ceased. The exceptions are cases like that of Dr. Waller's, which has been frequently quoted. In this case, there was placenta prævia; so much blood had been lost, that death was imminent; and the patient so exhausted, that it was evident that the attempt to deliver her would be fatal. Transfusion was here performed really in order to enable the patient to bear a further manipulation and possible loss of blood. The case, as is well known, ended successfully.

There is one remark which occurs to me as desirable to make in this place, in reference to the management of certain cases of flooding. A few cases of *post partum* hæmorrhage have been placed on record, in which the flow of blood could not be arrested, and in which the uterus continued to pour out blood, spite of all that could be done. In cases of this exceptional kind, transfusion is useless until the bleeding can be stopped. It appears to me that, in these very obstinate cases, the method of treatment adopted by Dr. Hamilton of Edinburgh merits a more general attention; viz., that of grasping the uterus from above by one hand, and placing the other hand in the vagina. The uterus is compressed between the two hands, and the compression kept up for half an hour or more. I have lately made use of this plan in a case where a continuous oozing of blood, unchecked by more ordinary means, was going on; and I found it a most satisfactory and practicable method of arresting uterine hæmorrhage.

The cases which have been just alluded to are quite exceptional; and in the majority of cases, when transfusion is called for, the hæmorrhage has quite ceased, and the effects of the previous loss of blood only have to be surmounted. To this class of cases, therefore, the following rules as to the indication for transfusion apply.

Absence of power to swallow. It may, I believe, be laid down as a rule, that transfusion is not required in cases where the patient is able to swallow freely: in the large majority of such cases, recovery is found to take place if the supply of brandy or other stimulant be adequate. There are reasons for believing that, in some of the cases of flooding in which a fatal result has occurred, the quantity of stimulant given has been too small. The quantity required and borne by the patient is often enormous. In one case which occurred in my own practice, the patient, the wife of a poor shoemaker, took in the course of two hours upwards of thirty ounces

of brandy, together with beef-tea and stimulant remedies of other kinds. She recovered without transfusion, although the symptoms were of a very alarming nature. In another case, that of an Irish milk-woman, the quantity of brandy given in the course of an hour was nearly as great, with a result equally fortunate. The quantity of stimulant required is to be estimated by the effect produced, and not by ounces. Unless, therefore, other symptoms, presently to be mentioned, be very alarming from their intensity, the fact that the patient has still the power of swallowing is indicative that more ordinary measures may prove successful.

A deadly pallor and coldness of the body and extremities; absence of pulsation, or extreme feebleness of pulsation, at the wrist; and laborious respiration, whether very slow or very quick,—the presence of these symptoms combined is one calling for the performance of transfusion; that is to say, when the symptoms in question persist for a few minutes, unrelieved by administration of other remedies. This combination of symptoms is more alarming when the patient has gradually (within the space of an hour, for instance) fallen into this condition, than when the symptoms in question have come on quite suddenly. Absence of power of swallowing may or may not be added to the symptoms above mentioned; and, so added, it renders the indication for transfusion the stronger. Absence of pulsation at the wrist appears to be, taken alone, one of the most positive indications for the operation; but it does not follow that, because such pulsation is felt, the operation is not required; and extreme feebleness, together with extreme quickness of pulsation, is in some cases as strongly indicative of the necessity for the operation as its complete absence in other instances.

The presence of *jactitation*—a condition of extreme restlessness—is a symptom not in itself an indication for the operation, but one of a very alarming nature; and when this symptom is present, it must be considered as suggestive of the possibility of the operation being shortly required. There are few cases of fatal flooding in which jactitation is not observed.

Another symptom, also of alarming nature, is *loss of consciousness*; but, unless of some duration, and associated with want of pulsation, or with great weakness and quickness of pulsation at the wrist, this symptom is not an indication for the operation. A very feeble pulse and loss of consciousness, when occurring together and persistent, indicate the operation. The patient sometimes falls into a state of complete and persistent unconsciousness, from which she cannot be roused; and there are some cases of this kind in which, although the pulse is still to be felt, it will become necessary to perform transfusion. Other cases, again, in which there are observed, alternately, deadly faintings and partial restorations therefrom, may, when this condition of things is persistent and unaffected by other remedies, require transfusion.

The presence of *obstinate vomiting, in combination with collapse from loss of blood*, is an indication for the operation under certain circumstances. In some cases, everything taken is immediately vomited; and, although a tolerable quantity of stimulant may be given by the rectum, it is less efficacious than when given by the mouth; absorption from the rectum not taking place so rapidly as from the stomach, as Mr. Savory's recent experiments have rendered evident. Vomiting is sometimes a favourable sign, where it occurs in consequence of the stomach having been overloaded with stimuli; and its occurrence under these circumstances may be absolutely indicative of improvement in the condition of the patient; but it may be, on the other hand, a sign of the worst possible augury, being sometimes observed just prior to the arrival of the fatal termination of the case.

The presence of *convulsions*, when these supervene

after prolonged collapse from loss of blood, is of the worst possible augury, and an indication for the operation. With reference to convulsion, however, there is this remark to be made, that occurrence of a convulsion may indicate, as it did in Mr. Soden's celebrated case, that the patient is better. In the instance in question, a convulsion occurred during the performance of the operation of transfusion; and this was the prelude to returning consciousness.

By testing the effect of light on the pupil, important information may be obtained. A dilated immobile pupil is indicative of extreme danger; so also absence of contractility of the orbicularis palpebrarum when the eyeball is touched by the finger. A patient brought to this condition by loss of blood would seem to be a fit subject for transfusion, if other remedies do not speedily effect manifest improvement.

There are many other symptoms observable in cases of flooding, which are indicative of danger in varying degrees, but which have not the same importance in relation to the present inquiry as those which have been already mentioned. The presence of blindness; singing in the ears, or deafness; yawning; a shrunken, lustreless appearance of the eyes; weight at the cardiac region, or a feeling as if a cord were drawn tightly round the chest; an expression on the countenance of extreme alarm; a loss of ability to recognise friends; incoherence of ideas,—these are symptoms which all who have had experience in obstetric practice are familiar with as accompaniments of severe uterine hæmorrhage; but there is not any one combination of them which can be regarded as indicating, taken by itself, that transfusion is necessary. They are sufficiently alarming, but not in a degree calling necessarily for the operation.

The cases in which transfusion is likely to be called for in obstetric practice are those in which hæmorrhage occurs, whether after abortion, or attendant on delivery at full term. The most urgent cases are those in which the patient has had repeated losses of blood from placenta prævia. There are a few cases in which transfusion is required, and in which the hæmorrhage is not considerable; as where the patient is suffering from the effects of shock, rather than from the effects of loss of blood. Of this class of cases, the one recorded by Mr. Soden (*Med.-Chir. Transact.*, vol. xxxv) is the most remarkable. This was a case of acute inversion of the uterus: the hæmorrhage was not considerable; but the collapse was extreme, and the patient was on the point of dying. The power of swallowing had ceased; the pulse at the wrist was gone, and the breathing stertorous; but the introduction of a small quantity of blood had the effect suddenly, and as it were miraculously, of bringing her back to life.

The foregoing rules and indications for transfusion are, I have reason to think, trustworthy. A few months ago only, I saw on two successive days two cases of flooding, which may be here mentioned by way of illustration. In the first case, the patient was in imminent danger for upwards of an hour and a half after all hæmorrhage had ceased; but, although the collapse was extreme, and the attendant symptoms distressing to witness, yet the pulse at the wrist was all the while to be felt, and the patient remained able to swallow. In this case, I was prepared to perform transfusion, had the patient become worse; but after a space of nearly two hours, occupied in the very liberal administration of brandy and other stimulants by the mouth, and brandy and turpentine by the rectum, the symptoms improved, and the danger was over.

On the following day, I was hurriedly sent for by a medical practitioner to a case of flooding. There had been severe hæmorrhage before as well as after the birth of the child. The hæmorrhage had ceased; but the patient was in an alarming condition, partly unconscious, but able to swallow, and the pulse at the wrist

extremely feeble. The child had been born an hour and a half; and brandy had been given, but not in any great quantity. After my arrival, more brandy was given as rapidly as possible. The patient was able to swallow for about ten minutes longer; but, at the end of this time, the power was lost, she became quite unconscious, and the pulse at the wrist was no longer to be felt. An injection of turpentine and brandy was about to be employed, when it became evident that the patient was rapidly dying, and that the only resource was transfusion. Death took place within half an hour from the time of my entering the room, and before the apparatus with which I was then provided, and which was one I had sometime previously procured from Berlin, could be brought into action. I still attempted the operation, respiration having ceased about five minutes; but, after a small quantity of blood had been injected, the apparatus got out of order, and no further attempt was practicable or useful.

The facts of the two cases above related corroborate what has been stated as to the value of certain signs as indications for transfusion. It seems probable that, in the second case, if the operation could have been practised before the patient had actually ceased to breathe, life might have been saved. The progress of the symptoms was too rapid to allow of this; but the experience thus obtained has convinced me both of the necessity of attempting deliberately to lay down more precise rules as to the indications for the performance of the operation, and of the necessity for being always supplied with means for easily and rapidly carrying the operation into effect. As far as can be judged, the event of the two cases just related is confirmatory of the correctness of the indications for transfusion which have been laid down.

It may not be out of place here to observe that, in almost all cases where transfusion is employed, other measures are also required. Thus, in cases where the breathing stops, artificial respiration should be employed; and, after blood has been transfused, stimuli are to be given by the mouth or otherwise. No case would seem so bad but that transfusion alone, or in combination with other measures, may not succeed; but, in the hitherto recorded successful cases, respiration has, I believe, been going on in each instance at the time the operation was performed. In the last successful case of transfusion with which I am acquainted—that recorded by Mr. Thorne (*Lancet*, vol. i, 1863, p. 266) of St. Bartholomew's Hospital—artificial respiration was twice successful in temporarily restoring the patient; and very shortly afterwards the transfusion was carried into effect.

3. The great and the chief obstacle to the extension of the operation is next to be considered. It is the difficulty connected with the Performance of the Operation itself. This difficulty arises from—*a.* Want of means speedily and immediately accessible for performing the operation with the necessary degree of nicety; and *b.* From want of previous study of the steps of the operation.

A careful consideration of the nature of the emergencies in which the operation is likely to be called for, together with a due estimation of the practical difficulties surrounding it, necessitates the conclusion that, if the operation is to be performed under advantageous circumstances, we must always be prepared to undertake it at a few minutes notice; and this necessitates the being provided with an apparatus portable, simple, and easily cleaned. Two years ago, I procured the apparatus of Professor Martin of Berlin, consisting of a small glass syringe, a cannula, and trocar. In the case above related, I used this instrument; but the nozzle of the glass syringe broke in the cannula, and it became useless. The simplicity of the apparatus commended it to my notice, but it does not fulfil the requirements of

the case. The various forms of apparatus sold in this country are open to the objection that they are too unwieldy to be carried about, and are, therefore, not likely to be within reach at the time they are wanted. Dr. Hamilton of Edinburgh lately proposed a very simple and portable apparatus, consisting of a small funnel with an elastic tube and a cannula, the blood being thrown in by the force of gravitation alone. This apparatus is objectionable, however, for the following reasons. The blood is kept exposed to the air for too long a time; its use necessitates the close juxtaposition of the individual supplying the blood and the patient; choking of the tube, which is a long elastic one, with coagula, is likely to happen; and, from what has been stated as to the amount of force which was in one case of transfusion necessary to propel the blood inwards, it appears that a break down might be expected with the instrument in question.

Before describing the apparatus which I have devised, and which is now submitted for the inspection of the meeting, it will be advisable to consider for a moment what are the principles which should guide us in the performance of the operation.

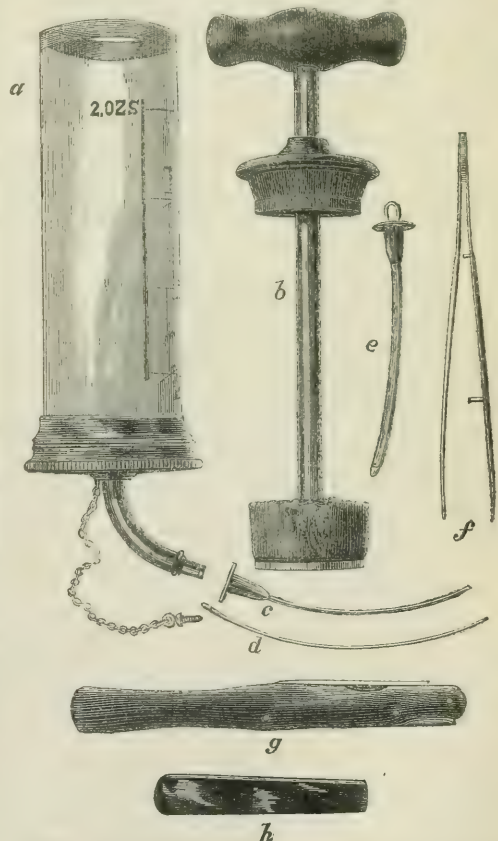
First, as to the blood to be used. Should pure blood or whipped blood be used? To this question, as it appears to me, there can be but one answer; viz., that pure blood should be used. The use of whipped blood has only this in its favour, that the injection of the fluid is not liable to interruption from coagulation. But the objections to it are numerous and weighty: first, the delay involved in the preparation; secondly, the probability that blood deprived of fibrine is less likely to act beneficially as a restorative. The blood remaining in the body after a severe hæmorrhage has been found by analysis to contain a greatly reduced quantity of crassamentum; and it is reasonable to infer, therefore, that a supply of what the blood is chiefly deficient in—viz., fibrine and blood-corpuscles—is most essential. Thirdly, it has been found by Dr. Brown-Séquard, that the introduction of defibrinated blood has, in animals experimented on, induced sudden coagulation of the blood and death. Lastly, it is to be recollected that, in all the successful cases of transfusion in obstetric practice, pure blood has been always used. It being decided that pure blood should be used, the next question to be determined is how best to prevent the occurrence of coagulation while the operation is in progress. This has been a great difficulty; and many attempts to transfuse blood have been frustrated by this coagulation, and by its interference with the operation.

The experiments and observations of Scudamore, Hewson, Carpenter, and Babington, confirmed by the more recent inquiries of Dr. Richardson, go to show that, while differences in the rapidity of coagulation are observed in different cases, yet coagulation is delayed by non-exposure of the blood to the contact of air; and that cooling of the blood a few degrees below the normal temperature does not facilitate coagulation, as it was formerly supposed to do. It is affirmed by Nasse, that woman's blood coagulates two minutes sooner than man's blood. The inferences to be drawn from these and other physiological considerations are—1. That, in the operation of transfusion, the blood of a man is better than the blood of a woman, while it has the further advantage of containing a larger proportion of those constituents of which the patient requires most; 2. That the use of warm water, and of a complicated apparatus to preserve the blood warm during the operation, is unnecessary; and 3. That a fundamental requisite for the operation is a means of preventing, as far as possible, exposure of the blood to the air. 4. Seeing that the time during which the blood remains fluid after being drawn does not, under such tolerably favourable circumstances as may be expected in operating, exceed three or four minutes, while it may be less, it is evident that the

various steps of the operation should be performed rapidly and without delay.

The apparatus now exhibited was constructed for me by Messrs. Savigny and Co.; and I have had placed together, in a compact and portable case, the whole of the appliances required for the operation. The blood is to be received into the barrel of the syringe, which is of glass, and holds two ounces; and when full, the piston is inserted, and the blood is ready for injection. This plan of having the piston removable from the syringe, and of receiving the blood into the syringe direct, is, I am convinced, the best; and the adaptation of this principle in the instrument now exhibited appears to me to be a convenient and useful one.

With reference to the steps of the actual operation, and the precautions necessary to be observed, they are sufficiently indicated in the following list of directions. These directions have been drawn up after a very careful study of the operation, and the rules laid down are devised to obviate in the best manner practical difficulties which have to be encountered in the performance of the operation. It is absolutely necessary that every part of the operation should be weighed and considered, and each step of it made to succeed the other accurately and quickly; and, although there is no great difficulty in the operation, it is undoubtedly one of some nicety.



The contents of the "Transfusion Case" (made by Savigny and Co.) are here represented half the actual size. The syringe (a) holds two ounces; (b) the piston; (c) cannula, and (d) its plug; (e) reserve cannula; (f) pair of forceps; (g) scalpel; (h) lancet.

The transfusion-apparatus now exhibited is so constructed that every part of it is easily cleaned and put

together. Its bulk is small; it is extremely portable; and by its aid the operation of transfusion may, I believe, be performed rapidly, easily, and satisfactorily.

DIRECTIONS FOR THE PERFORMANCE OF THE OPERATION OF TRANSFUSION.

Requirements for the Operation. 1. An individual to supply the blood. 2. An assistant to hold the arm of the recipient steady. Also a second assistant, to manage the arm of the individual supplying the blood. The second assistant may possibly in some cases be dispensed with. 3. The transfusion-case, containing a syringe, two cannulas, with plugs, scalpel, forceps, and lancet. There will be also required a basin, warm water, and a handkerchief to bind the arm in the operation of venesection.

Directions for the Performance of the Operation. 1. Arrange all the steps of the operation from first to last. The operation should not be commenced until every detail has been thoroughly considered, and provision made for the different steps to succeed each other rapidly.

2. See that all parts of the apparatus are in order. The syringe to be worked with a little warm water. The piston then to be taken out; and the whole apparatus, together with the cannulas, placed in a basin of clean warm water, ready for use.

3. Select a vein in the arm of the patient, either the median basilic, the median cephalic, or the cephalic vein; make an incision one inch and a half long, which will freely expose one inch of the vein. For a more limited space—*e.g.*, a quarter of an inch—the whole circumference of the vein should be exposed; so that, if considered necessary, a probe or a piece of thread may be passed beneath it.

4. Make a puncture with the scalpel at the middle of the exposed part of the vein, large enough to allow the cannula to be inserted. Insert one cannula, and withdraw the plug, taking care that the cannula is actually in the vein. (This first cannula is not to be used for the passage of the blood.)

5. The arm so operated upon is next to be given into the charge of an assistant, with instructions to prevent the escape of the cannula from the vein.

6. The next step is to obtain the supply of blood. Before doing so, however, instructions to be given to the second assistant as to what is to be done *after* the first supply is obtained; otherwise time will be lost in a subsequent stage of the operation. The vein to be opened by a large incision, so that a full stream of blood may be obtained. The glass syringe (without the piston, and with the small stopper of the escape-pipe removed) is to be held close against the arm, *horizontally*; the opening of the escape-pipe directed upwards to prevent blood flowing away. When about five-sixths full, the stopper of the escape-pipe to be inserted, the syringe to be held vertically, and the piston inserted.

7. Without a moment's delay, take the reserve cannula from the basin of warm water, and insert it in the vein of the patient, in the place of the first cannula. This substitution must be effected rapidly. Then remove the plug from the escape-pipe; and connect the syringe, ready filled with blood, with the cannula in the vein.

8. Inject the blood, keeping the syringe in a nearly perpendicular position. The injection should be made slowly; quite a minute should be employed in throwing in the contents of the syringe. If the cannula become blocked, withdraw it, and insert the other, freshly dipped in warm water and cleaned.

9. If more blood be required, leave the cannula in the vein while the same process is gone over again. (See Direction No. 1.)

10. It is very essential to take precautions for preventing delay in the different steps of the operation. Delays usually involve loss of blood, the blood becoming

coagulated and unfit for injection. The fainting of the individual giving the blood has frequently prevented a second supply from being obtained; and the loss of the first supply is, therefore, by all means to be avoided, if possible. Not more than one minute, at the most, should elapse between the filling of the syringe and the commencement of the actual injection. The water used to be about 95° or 100° Fahr.

It may be asked, *What is the quantity of blood necessary to be injected?* In half of the successful cases of transfusion, the quantity required has not exceeded four ounces (in the last successful case, only two ounces were required); although occasionally the quantity required is much greater—*viz.*, eight, ten, twelve, and as much as twenty-four ounces. The difficulty of obtaining a second or a third supply of blood from the same source necessitates occasionally the recourse to a second or even a third individual. It is necessary also to remark, that care is required in holding the arm, to prevent the cannula from slipping out; for this involves delay, and possibly consequent spoiling of the contents of the syringe. Like care is necessary with the arm of the individual supplying the blood, to avoid unnecessary loss of blood—a loss which might prove subsequently irreparable.

The present position of the operation of transfusion, as a remedy for the effects of flooding in obstetric practice, appears to be this: that, while the operation has proved successful in many instances, this fact is only now beginning to become known and disseminated amongst the profession. The next step which appears necessary to be taken is to utilise the operation, and afford facilities for its more general and more frequent performance. I am not without the hope that the observations I have made will have the effect both of directing more general attention to the subject of transfusion in obstetric practice, and of facilitating the application of the operation itself. I have remarked on the necessity for careful study of the operation, and of its various steps; and to this I cannot but attach the greatest importance. The time during which life remains after transfusion has become applicable is generally so short that, if the operation be not undertaken at once, it cannot be undertaken at all. Previous to the arrival of this stage of the case, time and attention are occupied incessantly in applying other measures—in making the patient swallow stimulants, or in arresting the hæmorrhage; and, surrounded as we are by the distracted friends, who are momentarily expecting to see the patient draw her last breath, we are certainly not in the best circumstances for planning and carrying into effect an operation requiring care, nicety, and deliberate calculation to render it successful.

In order that the operation may be really useful, and as applicable as any other therapeutic means, it must be made easy; and this can only be done by previously studying and reflecting on the operation in its minutest detail, and by providing means for rapidly and easily performing it. Whether the particular plan I have recommended for performing the operation be considered the best, is a matter on which diversity of opinion may naturally be expected; and I shall be glad to avail myself of any suggestions which the reading of this paper may call forth, in order to perfect both the apparatus and the operation.

A fear has been expressed by some authorities, that "if transfusion becomes a common practice, it will often be employed unnecessarily." The possible abuse of an operation is not, however, to be urged with any show of reason against its use; such an argument can only apply on the supposition that those who practise medicine are helplessly ignorant and destitute of discrimination. It is very certain that an earnest direction of attention to the peculiarities and necessities of cases of severe flooding, and a proper recognition of the place which should be occupied by transfusion as a remedy,

will result in giving such a degree of precision to practice in such emergencies as to prevent unnecessary performance of the operation. To use the words of Mr. Soden, "the stronger his confidence in the power of transfusion, with so much the greater patience and confidence would the medical attendant first avail himself of the more simple resources his experience suggested." (*Med.-Chir. Trans.*, vol. xxxv, p. 432.)

STATISTICS OF THE TREATMENT OF RHEUMATIC FEVER.

By THOMAS K. CHAMBERS, M.D., Physician to St. Mary's Hospital, London.

STATISTICS, like many other excellent things and people, are apt to prolong themselves into bores. It will be my aim to keep these as short as I can.

Since May 1851, I have had under my care at St. Mary's Hospital 243 cases of rheumatic fever. Of these, 26 were treated with 3j of nitrate of potash three times a day;

174 with bicarbonate of potash; viz.,

141 with ʒj or more every two hours;

33 with less quantities or less often;

32 (during the first year) in various other indeterminate ways;

To the last 11—that is, to all since May last—no special drugs have been given, only a little opium when the pain was very bad.

No selection of cases was made.

1. Results on the Duration of the Illness.

Of those treated with nitrate of potash, the mean stay in hospital was . . . 40.0 days

Of those treated with ʒj bichloral doses of bicarbonate of potash . . . 34.3 days

Of those treated with less quantity of the same . . . 40.0 days

Of those treated without drugs. . . 30.0 days

If we exclude the last class, the number of which (11) is too small for statistical deductions, it would seem that, though smaller doses have no effect, yet that full doses of the bicarbonate of potash have some influence in shortening the duration of the illness, from the time of commencing it to that of the patient being sufficiently convalescent to leave the house with safety.

I may remark here that any other measure of the duration of the disease is quite untrustworthy for statistical purposes. The different degrees of susceptibility to pain exhibited by different patients, the desire of some to extenuate, of others to exaggerate their sufferings, renders it impossible to register truly even the exact day when the pain ceases: whereas, in such a short period as they last after the commencement of treatment (viz., two or three days), the exact hour would require to be noted. It is equally impossible to decide when, or even whether, the swelling or redness is all gone. Those who have set clinical clerks to observe these facts, know how little the case-books are to be relied upon.

2. Results on the Consequences of the Illness.

In respect of their several preservative powers against the consequences of rheumatic fever, I find that—

Of the 26 treated with nitrate of potash, there were attacked with inflammation of the heart while under treatment (carefully excluding all those admitted with it already existing) five, or 19.2 per cent.; four having pericarditis, and one endocarditis only. Four have died; two of inflammation of the heart, and two of sloughing back.

Of the 174 treated with bicarbonate of potash, there

were attacked with inflammation of the heart nine, or only 5.3 per cent.; and none have died.

It would seem from this, at first sight, as if bicarbonate of potash had some preservative force. But the fact is, that nearly all of those treated by the alkaline method have been subjected also to what both rational physiology and the subjoined statistics seem to show has a much more powerful influence than any drug in keeping the heart from inflammation. I refer to blanketing the patients.

Up to May 1855, no difference was made in the bedding of my patients with rheumatic fever from that of others in the ward: but after that date they were ordered to be enveloped in blankets, and no linen was allowed to touch the skin. In nearly every case the orders were strictly obeyed.

Of 63, either bedded in sheets, or who had wilfully thrown off their blankets, six contracted newly pericarditis at least, if not endocarditis as well; three had a relapse of pericarditis on old cardiac disease; one had endocarditis alone; nearly 16 per cent. had inflammation of the heart; and four died.

Of 180 in blankets, none contracted pericarditis; none died; one had a relapse of pericarditis on old cardiac disease; five had endocarditis alone (in one of these cases of endocarditis it was brought on during convalescence by the patient being doused with cold water for an accidental hysteric fit); one a relapse of endocarditis on old cardiac disease.

Not 4 per cent. have had inflammation of the heart. When it came, it was of a milder character, and was generally to be accounted for by some imprudent exposure. That is to say, that bedding in blankets reduces from sixteen to four, or by a good three-quarters, the risk run by patients in rheumatic fever.

EFFECTS OF TOBACCO ON THE MENTAL FACULTIES. In reference to the question of the influence of smoking on the mental faculties, Dr. Richardson, in the *Social Science Review*, says tobacco, like all agents of its class, has the property of checking the oxidation of the body, and thus of diminishing waste. If mental labour is commenced when the system is well sustained, and the supply in excess of the waste, indulgence in smoking does produce in most persons a heavy, dull condition, which is difficult to throw off, because it stops the processes of assimilation and destruction. But if mental labour be continued until the wasting of the corporeal power is greater than the supply, then the resort to tobacco gives a feeling of relief; it checks the rapid waste that is going on, and enables the mind to bear up longer in the performance of its task. Many men who commence a day of physical or mental work on a good breakfast and tobacco, find that they go through their labours with much less alacrity than other men who are not smokers; while the majority of smokers feel that after a day's labour the resort to a pipe, if the practice is moderately carried out, produces temporary relief from exhaustion. He also adduces the well-known fact that many persons of great energy and industry cannot sleep owing to the actual severity of mental or bodily effort to which they have subjected themselves. In this condition there can be no doubt that tobacco produces a soothing effect, causing mental rest. Dr. Richardson does not advocate the necessity of tobacco as a requirement of the natural life. He believes that in this day we are not living naturally; we have run into the extreme of industry; have carried our exertions to the borders of insanity; and so it is to be admitted that to the natural man such adventitious aids as tobacco are unnecessary. He condemns the use of tobacco until the body is fully developed; and states that the indulgence in it by our children and youths is degrading the national intellect, and establishing a race which will transmit its own degradation to future generations.

Reviews and Notices.

LECTURES ON SURGICAL PATHOLOGY, delivered at the Royal College of Surgeons of England. By JAMES PAGET, F.R.S., Surgeon Extraordinary to Her Majesty the Queen, etc. Revised and Edited by WILLIAM TURNER, M.B.Lond., F.R.C.S.E., F.R.S.E., Senior Demonstrator of Anatomy in the University of Edinburgh. Pp. 848. London: 1863.

MR. PAGET'S *Lectures on Surgical Pathology*, from the time of their first publication in 1853, have maintained a high reputation among works having for their aim the exposition of discoveries in medical science and their application to practice. The time having arrived for preparing a second edition, Mr. Paget found that, although he had industriously accumulated a mass of "facts, and probabilities, and guesses at truth which had been added to pathology", the duties of active practice, which had increased on him during the last nine years, prevented him from subjecting the lectures to that careful revision which he would, as a conscientious man, wish them to undergo. He has, therefore, associated with him in his labour his friend and former pupil, Mr. TURNER of Edinburgh, a gentleman well fitted to be the fellow-labourer of so accomplished a pathologist as the author himself.

What is *Surgical Pathology*? The definition which Mr. Paget would attach to the term may be gathered from the titles of the thirty-six lectures of which the book is composed. These are: 1. Nutrition; 2. Conditions necessary to Healthy Nutrition; 3. The Formative Process—Growth; 4. Hypertrophy; 5. Atrophy—Degeneration; 6. Atrophy; 7. Repair and Reproduction of Injured and Lost Parts; 8. The Materials for the Repair of Injuries; 9 and 10. The Processes of Repair of Wounds; 11. The Repair of Fractures; 12. Healing of Injuries in Various Tissues; 13. Phenomena of Inflammation; 14. Products of Inflammation; 15. Development of Lymph; 16. Degeneration of Lymph; 17. Changes produced by Inflammation in the Tissues of the Affected Part; 18. Nature and Causes of Inflammation; 19. Modification; 20. Specific Diseases; 21. Classification of Tumours; 22. Simple or Barren Cysts; 23. Compound or Proliferous Cysts; 24. Fatty and Fibro-cellular Tumours: Painful Subcutaneous Tumours; 25. Fibrous Tumours; 26. Cartilaginous Tumours; 27. Myeloid Tumours: Osseous Tumours; 28. Glandular Tumours: Vascular or Erectile Tumours; 29. Recurrent Tumours; 30. Scirrhus or Hard Cancer; 31. Medullary Cancer; 32. Epithelial Cancer; 33. Melanoid, Hæmatoid, Osteoid, Villous, Colloid, and Fibrous Cancers; 34 and 35. General Pathology of Cancer; 36. Tubercle.

Thus the student of pathology is led gradually from the consideration of the physiological process of nutrition to its conditions of excess and defect—hypertrophy and atrophy; thence to the means adopted by nature for the repair of injuries; then to inflammation and its results; and finally to the study of various abnormal phenomena of nutrition, under which products foreign to the tissues of the healthy body are generated.

How these matters are treated of, those who have already read the first edition of Mr. Paget's *Lectures*

do not require to be told. To those who have not had this good fortune, and who would raise their knowledge of surgical pathology to the level of the present day in the most pleasant as well as efficient manner short of actual research, we say—Read this edition of Mr. Paget's *Lectures*. They are the work of a man who is master of his subject, and who, to habits of observation and industry, happily unites the power of writing in a style that renders the perusal of his works an agreeable task. On the present occasion, he has been well seconded by Mr. Turner in his endeavours to bring up the work to the existing level of pathological doctrines, ever advancing as it is, so as to render the work an admirable exposition, not only of the author's special views, but of the present state of science in regard to those matters which form the titles of its several chapters.

ANATOMICAL AND PHYSIOLOGICAL OBSERVATIONS.

By JOHN STRUTHERS, M.D. Edinburgh: 1863.

DR. STRUTHERS does well to supply the profession with a reprint of the very able papers on physiological and other subjects which have been written by him in different journals. The present contribution contains four papers, making altogether twenty-three from his pen. The first is the Description of a Case of Double Uterus; the second, on the Solid-hoofed Pig; the third, on the Relative Weight of the Viscera on the two Sides of the Body; and the fourth, on Variation in the Number of Fingers and Toes and Phalanges in Man. These papers were originally printed in the *Edinburgh Monthly Journal*, and in the *Edinburgh New Philosophical Journal*. They fully sustain the high reputation of Dr. Struthers as an anatomist and a physiologist.

INFANT FEEDING, AND ITS INFLUENCES ON LIFE: OF the Causes and Prevention of Infant Mortality. By C. H. F. ROUTH, M.D., M.R.C.P.E., M.R.C.S., etc. Second Edition. Pp. 462. London: 1863.

WHEN the first edition of Dr. ROUTH's book appeared, we had pleasure, after a perusal of its contents, in speaking favourably of it. The verdict which we then pronounced, we would repeat and confirm with respect to this second edition.

The author has subjected his book to a most careful revision; and, while he has not seen reason to change any of the doctrines which he enunciated in the first edition, he has, by a judicious pruning away of matter capable of being omitted, made room for the introduction of some new and valuable matter. He has, too, arranged his materials in a more orderly form than that which they formerly possessed. The book now consists of four parts; viz.: 1. Mortality and Viability of Infants; 2. Lactation; 3. Some General Deductions in Reference to Alimentation, made from the Composition of Milk and its Substitutes; 4. Defective Assimilation.

Dr. ROUTH's aim in publishing the work has been to show a way towards lessening the excessive mortality among infants which so notoriously prevails among us. His patient investigation both of the statistics of infant mortality, and of the nature and applicability of the various articles administered as food to children, and the honest desire which he evi-

dently feels to make his knowledge subservient to the preservation of infant life, are deserving of the highest praise; and we join heartily with him in the hope that not merely the profession, but the public, will see the necessity of attention to scientific principles in the dietary of infants.

Progress of Medical Science.

ON THE BEST METHODS OF APPLYING THE CALABAR BEAN IN OPHTHALMIC MEDICINE. Mr. Daniel Hanbury states that certain difficulties occur in forming a preparation of the Calabar bean which can be conveniently applied to the eye. These difficulties arise from the fact that the alcoholic extract which contains the whole of the poisonous principle of the bean can only be imperfectly dissolved in water, and that its alcoholic solution is inadmissible. There is also another difficulty which occurs with all liquids that are required to be dropped into the eye; and that is, that the flow of tears which instantly follows such an application greatly reduces the amount placed in contact with the membrane, or at any rate renders it very uncertain. These considerations have suggested other expedients for applying the remedy, one of which is to use the extract by itself; another is to employ it diffused through paper, after the manner recommended by Mr. J. F. Streatfeild for the application of atropine; and a third is to use a solution of the extract in glycerine. Each of these methods has certain advantages. The extract, which is prepared by exhausting the finely powdered bean with alcohol, sp. gr. .838, and evaporating the solution, is not a homogeneous body, but contains a small amount of greenish fatty oil, which separates as the solution is concentrated. Its action upon the eye is rapid and powerful. The best means of using it is to moisten a camel's-hair pencil with water, and then with its tip to rub off a minute quantity of extract and apply it to the palpebral conjunctiva of the lower lid; so applied its specific action ensues in the course of a few minutes. This method of the direct application of the extract would probably be hardly advisable in any other than professional hands.

The method of applying atropine to the eye by soaking a piece of thin bibulous paper of definite size in a known quantity of solution of atropine and then allowing it to dry, has been recommended in this country by Mr. Streatfeild, and in France by M. Leperdriel. Such paper should be cut into small pieces from one-fifth to one-eighth of an inch square, the proportion of atropine being so regulated that a single square shall represent a drop of the ordinary solution of two grains to the ounce. Paper prepared on this principle with a solution of Calabar bean answers extremely well, and promises to afford the most definite method of regulating the quantity of the remedy to be applied. The following is the process which Mr. Hanbury has adopted:—One ounce Troy of the bean, reduced to fine powder, is to be thoroughly exhausted by hot rectified spirit (.838); the solution so obtained is to be filtered and evaporated until extract begins to deposit on the bottom of the dish, which will occur when the solution has been reduced to about ten fluid drachms. When cold this solution is to be passed through a small filter, and is then ready for the paper. This may be thin writing paper, the size contained in which has been removed by boiling; it should be immersed in the solution four times, and be allowed to drain and dry between each immersion. Of paper thus prepared, a piece measuring one-eighth of an inch square placed within the lower eyelid commences to act in about twenty minutes, and continues to produce its effect during several hours. Its presence in the eye occasions no un-

easiness beyond that which is attributable to the drug. A solution of the extract of Calabar bean in glycerine, made in the proportion of two and a half grains of extract in one hundred minims of pure glycerine, has also been tried and found to answer well, the glycerine in no way interfering with the action of the extract. (*Pharm. Journal.*)

THE DETECTION OF ARSENIC IN COPPER. Dr. W. Odling observes that, as even in the most satisfactory performance of Reinsch's test for arsenic there is always some, although but an extremely small quantity of the copper wire, foil, or gauze dissolved, and, as commercial copper is rarely quite free from arsenic, and sometimes contains a very notable proportion thereof, it is important that the copper to be used in medico-legal researches as a precipitant for arsenic should be specially tested as to its purity. But, as in the ordinary mode of experimenting by Reinsch's process, the amount of metal dissolved is scarcely appreciable, it is quite unnecessary to submit any considerable quantity of it to examination. If a solution of four or five grains of the copper does not yield any evidence of arsenic, it is quite pure enough for the purpose, even though a little arsenic should be recognised in the solution of a larger quantity. As a means of detecting traces of arsenic in copper, the author believes that the following process is superior to any hitherto proposed in conjoint delicacy and rapidity of operation. A few grains of the copper cut into fine pieces are placed in a small tube-retort, with an excess of hydrochloric acid, and so much ferric hydrate or chloride as contains a quantity of iron about double the weight of the copper to be acted upon. The mixture is then distilled to dryness, some care being taken at the last to prevent spurting. The whole of the copper is in this way quickly dissolved, and any arsenic originally contained in it carried over in the form of chloride of arsenic, which may be condensed in a little water with the excess of aqueous hydrochloric acid. The resulting distillate is then tested for the presence of arsenic, by treating it with sulphuretted hydrogen, or, preferably by boiling in it a fresh piece of clean copper foil or gauze. In some cases the residue left in the retort may be treated with a little fresh hydrochloric acid, again distilled to dryness, and the distillate collected and tested along with that first produced. Most oxygenants other than ferric chloride are objectionable, as by their reaction with hydrochloric acid they give rise to free chlorine, which passes over with the distillate, and renders it unfit for being immediately tested either with sulphuretted hydrogen or fresh copper. Cupric oxide or chloride, on the other hand, is scarcely active enough for the purpose; while the dissolution of copper in hydrochloric acid brought about by mere exposure to the air is extremely tedious. Ferric chloride is rendered quite free from arsenic by evaporating it once or twice to dryness with excess of hydrochloric acid. (*Journal of Chemical Society.*)

THE USE OF THE THERMOMETER IN THE DIAGNOSIS OF TYPHOID FEVER. As a curious and ingenious means of diagnosis in typhoid fever, may be mentioned the thermometer, as proposed by Professor Wunderlich. Starting with the proposition that this disease has two perfectly distinct stages, in the first of which infiltration and exudation occur, and in the second retrogressive metamorphosis, elimination of morbid matter and healing of diseased parts, he believes the thermometer will indicate not the stage alone, but the intensity of the disease, its progress and its probable result. Thus, "within the first week the thermometer is often able to render the diagnosis certain, when other symptoms cannot do so, as the temperature of the skin rises in the following characteristic manner:—In the first half of the first week it augments from morning to evening 2-25 degrees Fahrenheit; and from evening until the following morning it falls 1° 1'

Fahrenheit. In the second half of the first week the evening temperature remains $103^{\circ} 3'$ to 104° and higher, while the morning temperature is $1^{\circ} 1'$ lower. There is no typhoid fever when the temperature rises to 104° Fahrenheit on the first or second day of the disease, etc. On the other hand, when the temperature increases every evening—though the symptoms seem light—we may safely assume the existence of typhoid fever. In the second week, whenever the temperature is below 103° in the evenings, there is no typhoid fever." But we hardly think a safe diagnosis or prognosis could be based on such a test alone. It is a refinement which will never come into general use, though it may be very useful sometimes to assist in the diagnosis. After all, patient examination and study of all the objective and subjective symptoms presented, with conservative practice, such as the thinking portion of the profession now generally follows, will guide pretty safely both in diagnosis and treatment, in this as in all other diseases. (*American Med. Monthly.*)

POISONING BY COPPER. Besançon, in France, is a great watch manufacturing town. There are upwards of three hundred workshops, with over three thousand persons employed therein engaged in the making of watches. The polisher, the replacer, the finisher, the engraver, all continually manipulate metal, either gold or copper, of which particles are absorbed into the system either by the lungs or through the skin. This absorbed copper causes certain gastric symptoms (to which Dr. Perron called the attention of the Medical Society of Besançon). They constitute complete poisoning of the system by copper, and the continued exposure of the workmen injuriously affects their health, and strongly predisposes them to tubercular phthisis. Hence all mechanical manipulation of copper should be interdicted to those persons having a tendency—either hereditary or accidental—to such diseases. "They should have much out-door exercise, and employ frequent evacuations and sudorifics. To guard against the effects of working in these shops, they should be daily well ventilated, while the *employés* should strictly observe cleanliness, bathe frequently, use succulent aliments and tonic drinks, and wear moustaches." The aggregation of many individuals in a confined space is, under all circumstances, prejudicial to health; if now we add the inhalation of metallic particles, the condition of affairs is certainly not improved thereby, particularly where the organs of respiration are subject to suspicion. Whether, however, the absorption of the cuprous particles more than those of any other metal is injurious, and tends to excite phthisis pulmonalis, is open to question. All influences that destroy the powers of digestion, or depress the general system for a length of time, must be considered as tending to develop lung disease, particularly where these organs have some hereditary taint. (*Amer. Med. Monthly.*)

DIGESTION. M. Brücke, of Vienna, (*Canstatt's J. de Pharmacie*) has communicated to the Austrian Academy of Science an interesting paper on the influence of acids and pepsin in digestion, and on the question whether the latter is formed during that process; and also, in what manner the secretion of the digestive fluid takes place. By pepsin, Brücke understands the nondescript substance emanating from the glands of the stomach, and which, in an acid solution, has the power of dissolving all albuminous matter on the stomach as well as without it. He found by a number of careful experiments that this power is strongest in a solution of seven-eighths of a gramme of dry hydrochloric acid in a litre of water, decreasing when the amount of acid rose above one and a third, or fell below the nine-twentieths of a gramme. Contrary to the generally accepted views of Mulder, that part of the albuminous matter may pass into pepsin, Brücke's experiments go to show that such is not the case. He concludes that the stomach in an empty condition contains

no acid fluid, which is only secreted by the action of the nervous system when food is introduced. Dr. Ebstein (*ibid.*) communicates a series of experiments on the action of saliva upon starch. Like Leuchs, Frerichs, and others, he found that starch, in contact with saliva, even in the presence of some acid, to a certain extent is converted into dextrin and sugar, and that the secretions of the stomach, though of an acid reaction, do not prevent this change. Dr. Ebstein remarks, that while secreting the saliva necessary for his experiments, he found it advisable to abstain from smoking, which, we suppose, he otherwise considers a legitimate occupation during physiological experiments; he does not, however, suggest the same caution in regard to chewing. (*Chemical News.*)

ACTION OF TARTARISED ANTIMONY ON THE HEART. Professor Ackermann of Rostock, in a memoir on this subject, observed that, by means of tartarised antimony, we are enabled to induce different degrees of collapse by varying doses of the drug. Slight appearances of collapse accompany the first excitement of nausea, and they increase as the nausea increases. The frequency of the pulse also increases until immediately before vomiting, while its force progressively diminishes. The temperature of the peripheral parts falls in proportion as the nausea and frequency of the pulse increase. After the act of vomiting, or when this does not ensue, after the termination of the feeling of nausea, appearances of reaction begin. Injections of tartarised antimony into the blood-vessels in dogs produce results similar to those observed in man. Professor Ackermann always observed, after injection of tartarised antimony, a diminution of the force of the blood in the aorta; and this took place whether the frequency of the pulse increased or diminished, but was greater with a slow pulse, and was greatest immediately before death. As the drug diminishes the arterial tension and the force of the heart's movements, it retards the circulation of the blood, and hence induces a decrease of animal heat, which becomes lower in proportion to its longer and more powerful operation. This lowering of the temperature appears to be occasionally interrupted by its elevation, and the latter seems to be dependent on the contemporaneous acceleration of the breath-movements. Professor Ackermann does not deny that the vomiting and purging may also hasten the cooling of the body; but he considers that these circumstances are not necessary conditions. The irritability of the heart is perceptibly weakened by the use of tartarised antimony. In dogs killed by the injection of this salt into an artery, the irritability of the heart, examined immediately after death, was remarkably diminished, and sometimes altogether extinguished. The hearts of frogs placed in a solution of tartarised antimony lost their irritability much sooner than in pure water. The diminution of muscular power was also very remarkable. The breath-movements were sometimes calm, sometimes hurried, but for the most part very slow, with hasty, forced inspiration, and very long expiration—appearances which Professor Ackermann attributes partly to the congestion of the venous system and the deficient combustion, and partly to a directly debilitating effect of the tartarised antimony on the organs of expiration. The short and spasmodic inspirations which for the most part precede the long expirations appear to be determined by a similar spasmodic contraction of the diaphragm to that which is seen before the act of vomiting. The examination of animals poisoned by tartarised antimony showed a general congestion of the whole venous system, the *venæ cavae* and the portal vein being especially filled with dark blood; the liver, spleen, and kidneys excessively congested with blood, sometimes with extravasation; the lungs not, as Magendie maintains, changed in structure and partly hepatised, but for the most part normal, or at most showing some emphysema of the

margins and small ecchymoses. The large intestine was regularly contracted both in length and breadth, and there were some ecchymoses on the folds of the mucous membrane. (*Virchow's Archiv*, and *Brit. and Foreign Med.-Chir. Rev.*)

BROMINE IN HOSPITAL GANGRENE. Dr. Stanford, a surgeon in the United States Army, speaks highly of bromine as a remedy in hospital gangrene. The pure bromine, he says, should always be used in preference to any solution which can be made. The wound should be properly prepared for its application, and then the remedy should be properly applied. Every part of the pulpy mass and detached *débris* should be removed from the wound, as far as possible, without injuring sound portions of tissue in the wound. To this end, the undetached pulp should be dissected away with forceps and scissors. The wound should then be thoroughly washed with warm water, after which it should be dried with a sponge, and then with the rounded end of a spatula scrape away any remaining portions of the lifeless tissues which may be still adherent, yet capable of being removed without too much injury to the adjacent sound parts. This done, wash and dry the wound as before directed, and then apply pure bromine to every part of the diseased surfaces, taking special care not to be deceived as to the certainty of having reached with the remedy every gangrenous point, some of which may lie beyond the common surfaces, the virus having travelled out of sight in and along the cellular tissue. To make the application certain, and beyond the possibility of deception, a small round end of a glass test-tube should be used, or some other instrument answering the same purpose, with which the bromine should be pushed into the cellular texture, and thoroughly stirred in every part of the wound. If these directions be strictly followed, it will rarely be necessary to make more than one application of pure bromine. The second application should not be made within the four first days after the first application. If the odour peculiar to the disease is entirely removed by the first, the second application should not be made; but if, at the end of the fourth day, there is any remaining odour, the surface which was charred by the remedy may be removed, and it will then be easy to discover what points in the wound have not been reached by the former application: these alone should be touched with the remedy. After the patients have received an application of the remedy, the gangrenous surface may be covered with a yeast or cinchona poultice; or, if the surgeon chooses, he may dress it with lint or simple cerate. (*Amer. Med. Times.*)

SENILE DEMENTIA AND GENERAL PARALYSIS. The following results have been arrived at by Dr. L. V. Marce, of the Bicêtre. 1. Senile dementia does not constitute a distinct morbid entity. It is in reality an aggregate of symptoms pertaining to different organic affections of the brain, and notably to apoplexy and softening. 2. It is made up of two series of symptoms: those, on the one hand, of motility, which become more or less affected; those, on the other hand, of intelligence, chiefly a progressive enfeeblement, to which is superadded maniacal or melancholic delirium. 3. The disturbances of motility are always explained by organic lesions in the course or at the origin of the motor fibres. To enfeeblement of intelligence there correspond atrophy of the convolutions, fatty infiltration, and more or less complete obliteration of the capillaries of the cortical layer, and atheromatous degeneration of the cells and nerve-tubes. 4. Senile dementia may be distinguished from general paralysis in most cases by the signs above alluded to. In an anatomico-pathological point of view, these two diseases have atrophy and fatty degeneration of the tubes and cells as a common terminal result. But in general paralysis this atrophy is consecutive to a

plastic exudation, which, arising around the wall of the capillaries, gives rise to adhesions between the pia mater and the cortical layer, diminishes the calibre of the vessel which it compresses, and obstructs the circulation of the blood. In senile dementia, on the contrary, the obliteration is consecutive to atheromatous deposits, which arise spontaneously in the capillaries, in consequence of advance of age and diminution of assimilative force. (*L'Union Médicale*, and *British and Foreign Medico-Chirurgical Review.*)

PERCHLORIDE OF IRON IN DIPHTHERIA. M. Courty employs perchloride of iron in diphtheria, in two forms: 1. Internally, in the dose of twenty-five to thirty drops in a glass of water in twenty-four hours, given in teaspoonfuls, and each dose followed by a mouthful of milk to remove the styptic after-taste. He continues the medicine, even after the cure, for a sufficiently long time to restore the strength and to shorten the convalescence. 2. He employs it locally, if not to the exclusion of every other topical application, still with a marked preference; and the reason of the preference is, that the solution has at once a caustic, hæmostatic, and tonic action, by virtue of which it very favourably modifies the surface after the removal of the false membrane, and spares the neighbouring parts, which are not denuded of epithelium; and besides, if it is impossible to remove the diphtheritic patch, the perchloride of iron possesses the valuable property of acting upon it and penetrating it, of infiltrating itself under its edges, and thus going on to reach and modify the subjacent tissues. (*Brit. and For. Med.-Chir. Review.*)

EFFECTS OF TEMPERATURE ON THE SECRETION OF UREA. In a paper read before the Royal Society, and written by Dr. Emil Becher, the author endeavours to establish a remarkable relation between the air-temperature and daily amount of urea and chloride of sodium voided. His experiments were performed by estimating the urea and chloride of sodium volumetrically—as constant a mode of living as possible being observed in the subject experimented upon. The observations were made by the writer upon himself during a voyage to China (round the Cape of Good Hope). "The results show a most remarkable relation between air-temperature and daily quantity of urea and chloride of sodium; viz., a constant increase with the rising of the temperature from 50°—70°, and an equally constant falling off with the further rise of temperature from 70°—90°. The physiological limit of the tropical zone, as marked by the sudden decrease in the quantity of urinary water, is constantly fixed at 76°." (*Dublin Med. Press.*)

CRYSTALLISED SULPHATE OF ATROPINE. M. Laneu obtains sulphate of atropine in crystals by dissolving the alkaloid in alcohol, and then exactly saturating it with sulphuric acid diluted with alcohol. The solution is left to evaporate spontaneously. Parts of the deposits which appear amorphous to the naked eye are seen under the microscope to be crystalline. (*Répertoire de Pharmacie*, t. xix, and *Chemical News.*)

FAT versus STRYCHNINE. I lately saw noticed as a discovery the antidotal properties of oily and fatty matters in strychnia poisoning. *Nihil novum sub sole!* This is so old and well-known a fact that here in the interior of Brazil, when the municipal officers poison the dogs found in the streets with strychnine, the owners save them from dying when they immediately run home by making them swallow large quantities of olive oil. Some time back cyanuret of potassium was tried here as a dog poison, but failed, the animals uniformly vomiting it. (*Dr. Daunt, in Dublin Med. Press.*)

British Medical Journal.

SATURDAY, AUGUST 29TH, 1863.

THE REPORT ON VIVISECTIONS.

THE report of M. Moquin-Tandon on vivisection has been presented to the Academy of Medicine. Our readers may remember that the Society for the Protection of Animals in London addressed a memorial to the French Emperor, pointing out the "atrocities" committed by French experimenters on animals. This memorial was forwarded to the Academy of Medicine. We need hardly say that its language was very intemperate, and contained many serious accusations against the Frenchman. This intemperance of language naturally excited much anger, and has, we understand, retarded the production of the report. "The cause of the abuse of vivisection", we read, "would have been utterly lost through the violent and fantastic language of the London Society, had it not fallen into the hands of an Academic Commission composed of serious, just, and compassionate minds." The report is written in a tolerably calm and moderate tone. It maintains what it considers to be the use, and condemns the abuse, of vivisection. It determines the limits of the scientific use, and points out where the abuse of the thing—cruelty—commences. The conclusions of the report were given in the last number of the JOURNAL.

It is expected that the discussion in the Academy of Medicine of this report of M. Moquin-Tandon on vivisection will be a very warm one. It is reported that M. Dubois, the *Sécrétaire Perpétuel*, will do the Academy the rare and striking honour of leading off the debate with a long and eloquent oration. If he do lead off, he will (according to the custom of first speaker) combat the report's conclusions; that is, he will be opposed to vivisections as recommended in the report, at least. M. Parchappe, it is understood, will show forth the utility and the morality of vivisections. M. J. Béclard, and the veterinary, M. Bouley, will also enlighten the world on the subject with their opinions. Unfortunately, at this time of the year, many of the learned academicians are away on their travels, etc.

The report tells us that at all times there have been sensitive minds who have objected to vivisections; but never have we met with such violent and unmeasured language as that contained in the article from *Bell's Life* and in the memorial from the Society for the Protection of Animals, which were forwarded through the Emperor to the Academy of Medicine. They are unworthy of the honour of a reply. The report then enters into the question.

Experiments on animals always excite a painful sentiment; operators themselves partake of this sentiment. In all cases, every attempt is made as far as possible to lessen the sufferings of the animal. The operator has no interest in causing their sufferings; he never operates from mere pleasure. What surprises us is, that men who condemn vivisections give their unreserved approbation to bull-fights, to sports of all kinds, cock-fights, and so forth. But, in the school, every wound of the knife is made for the sake of science; whilst the wounds, the agony, and the death of animals in the circus are all for amusement. Any one with a ready pen and a little sensibility may make all the operations performed by our best surgeons appear as monstrous. In truth, a member of the Peace Society might just as well exclaim against the destruction of the soldier in the field of battle as being cruel and monstrous. The report then goes on to point out the service rendered to medicine by physiological experiments, and how conservative surgery has gained by vivisections. It tells us that the idea of the results obtained from animals not being of service, as applied to man, is a complete error; and that wrong also is the opinion that the results cannot be safely trusted, as being obtained from suffering animals. It also shows that toxicology, therapeutics, and hygiene would not exist except through experiments, unless we resolved to perform on man himself the experiments practised with poisons and their antidotes. And, referring to the grand prize offered by Louis Napoleon, it asks of *L'Autorité*: If experiments are not to be performed, who can compete for the prizes on the question of regeneration of bone, and of antidotes to poisons, offered by the greatest authority in the land? The Committee recommend that experiments should be restricted; and that experiments on questions already settled should be rarely repeated. Experiments should be not considered as matters of necessity in lectures. It is dangerous also to perform them in public before persons who cannot understand the object of the mutilations practised. In veterinary surgery, operations on the living animal are useful; but it is not necessary to perform all the operations on one horse.

WHAT IS A RECOGNISED MEDICAL PRACTITIONER?

ONE Thomas Airey has been summoned before the magistrate at Merthyr for taking the title of M.D., "thereby implying that he was a medical practitioner recognised by law." And the magistrate, with the best will in the world to convict the man, is forced, as he thinks, after a careful study of the Medical Act, to give a verdict in his favour. The case is one of much interest; we, therefore, give a summary of his worship's (Mr. Fowler's) decision.

"The purpose of the Act is that persons requiring medical aid may be enabled to distinguish qualified from unqualified practitioners. The defendant is not registered; and the question is whether, being shut out from the privileges conferred by registration, he is also made liable, by Section 40, to a penalty of £20, for adding M.D. to his name. I now come to consider whether the addition of M.D., under the circumstances that accompany it, does imply that the signer is (in the terms of the information) a medical practitioner recognised by law. With this view, I must try to discover what is the meaning of 'recognised by law.' I have most critically examined them; and I confess that I do not think it is possible to construe them with positive certainty. If it were not for the light afforded by Section 34, I should conclude that 'recognised by law' has no special legal meaning. But Section 34 enacts that any words importing a person recognised by law as a medical practitioner when used in any Act of Parliament shall be construed to mean a person registered under the Medical Act. It seems to me that this is the best explanation that can be found, and that it is reasonable to adopt this interpretation of 'recognised by law,' not only for Acts of Parliament, but for any legal purpose such as the present. If this be so, it follows that when the summons charges the defendant with wilfully and falsely using an addition implying that he is a practitioner recognised by law, it does, in substance, charge him with using such addition implying that he is registered; registered and recognised by law being really the same thing. The question here arises, whether the letters M.D., as used by the defendant, and the words he used, bring him within this charge. Now, these letters are the mark of a very large class of medical men all over the world. I see nothing in their use which indicates that the person using them is registered under the Act. The statement that he was a doctor implies nothing more than the letters. Still less am I satisfied that he can be convicted of wilfully and falsely taking an addition implying that he is recognised or registered by law, when I remember that he hung out a foreign diploma in his window, which negated the idea of a pretension to be an English physician. If he had signed himself physician or surgeon when he was neither—or added the word registered to M.D. when he was not so—or, perhaps, if he had added letters indicating any of the qualifications for registration as stated in the schedule—he might be convicted. But these are acts very different from that of a foreigner, designating himself as that which he says he is, and gives *prima facie* proof he is, in his own country. The cases which have been decided upon the statute confirm me in this view of the case. In Pedgriff's case, who had the word surgeon on his door plate after his name, and was not registered, Lord Chief Justice Erle said, 'The facts in the case show that he called himself a surgeon and was not registered. That, in my opinion, is not enough.' In the case of Kelly (1 Cox, 226), the defendant had a brass plate on his door, and was called, and called himself, Dr. Kelly. He had a diploma from Erlangen, was registered as a surgeon, but not as a doctor of medicine. The summons, which was drawn upon the same section as the present one, was dismissed; and the Court of Exchequer held that the Justices were right. The Lord Chief Baron said, 'Having a diploma, which authorised him to call himself 'doctor' out of England, why not here? He is most certainly not within the terms of the 40th Section as being a person who falsely and wilfully pretends to the title.' It does not appear to me that the exclusive right to practise has been created by this Act in favour of registered practitioners. If such right is expedient, as it probably is, the statute must be amended by the introduction of more definite words. I think, however, that the intention was to enable patients to ascertain easily what sort of claim to confidence, on the score of education, is pos-

sessed by the doctors they consult. I must add that I am constrained by the reasoning I have pursued, and by the opinions of the judges, to dismiss the summons, greatly against my own feelings in the matter."

The decision given in this and former cases clearly shows, that any ingenious or unscrupulous individual may readily evade that clause of the Medical Act which forbids the improper assumption of medical titles. Let Abraham Linking, for example, hang out a ragged bit of parchment from a window in Seven Dials, stating that he is a Doctor of Medicine of the University of Niagara, in Alabama county, and, as nothing appears to contradict this public exposition of his right to the title of Dr., he may, it seems, legally call himself Doctor of Medicine, even though he be in reality merely a fifth-rate Jew herbalist who had graduated at Shoreditch.

The *Medical Register* is, according to this, simply a medical register, and an imperfect one; and the Medical Act is no protection whatever against the assumption of medical titles by charlatans and impostors. Ordinary common sense would dictate, that if the law really intended to make a distinction, by aid of this *Register*, between qualified medical men and irregular imposters, it would insist that no man shall designate himself as being qualified to practise medicine, unless he can prove to the satisfaction of the Registrar, that he really possesses the title which he assumes. Surely, there is no great hardship in throwing the burden of the proof on the shoulders of the claimant. As the law now stands, a practitioner—a *docteur noir*—from Timbuctoo or Dahomey, may plant himself amongst us, and successfully display his doctorate-parchment from the University of Nigritia. It is for the prosecutor here, it seems, to prove that no such University exists. So says the law, if Mr. Fowler has rightly interpreted it. Surely there is some reforming work here cut out for the Medical Council, which talks so much and does so little. Their Medical Act manifestly wants a good deal of tinkering. Its service to the profession seems daily diminishing, as we become better (or worse) acquainted with its powers.

THE MURDER OF INNOCENTS.

LORD SHAFTESBURY has called attention to the infamous abuses to which children are still subjected in manufactories. He has called upon the Government, if it would retain the name of Christian, to put an end to these outrages upon humanity. We reproduce some of the details which he gave while introducing the subject to the House of Lords. His desire is that, at an early period of next session, the Legislature should take the subject in hand. We are sure that the profession will give every assistance in their power to the furtherance of so excellent an end.

Lord Shaftesbury, in 1840, moved for a Commis-

sion; and good came out of it, but not all that must come. The Commissioners, in their first report, refer, among others, to the following works in which children are employed:—potteries, lucifer-match manufactories, percussion-cap manufactories, paper-staining works, fustian-cutting works, and lace and hosiery manufactories; and also to the violation of the act relating to climbing boys. The number of children between the ages of 6 and 18 employed in pottery work in Staffordshire is 11,000. Their hours of work are from half-past six o'clock in the morning until half-past six o'clock in the evening. One of the reporters states that the places in which they work are perfectly intolerable on account of the dust and the total absence of all ventilation. Many children of tender years are constantly employed in the stoves, which the inspector who visited them says are rooms, or rather ovens, twelve feet square and from eight feet to twelve feet high. He tried the heat of three of these rooms, and found that in one the thermometer stood at 126°, in another at 130°, and in another at 148°. Here children work from half-past six in the morning till eight or nine o'clock at night.

Vice and gross ignorance is the natural result. The physical effect upon these children is described by medical men resident on the spot. They say:—

"The potters are, as a rule, stunted, ill-shaped, and frequently ill formed in the chest. They become prematurely old; are short-lived; are especially prone to chest-disease, pneumonia, phthisis, and asthma. Scrofula is a disease of two-thirds or more." "Each generation" (says Dr. Greenhow) "becomes more dwarfed and less robust; and but for their occasional intermarriage with strangers, this deterioration would proceed more rapidly."

Lucifer-match making is an employment which began about 1833. About 1845, a surgeon at Vienna discovered that it was one of the most dangerous and unwholesome of industrial pursuits. He found that it produced a peculiar disorder affecting the jaw, which ended in what is called necrosis. The number of children and young persons between 6 and 18 years of age employed in this trade is 1800; and the general statement with regard to it is that the hours of work are frequently prolonged deep into the night. Of forty-eight of the places in which the work is carried on, and visited by Dr. White, only fourteen were found to be tolerably safe.

"The mental state of the children" (the report says) "and young persons calls for an effort to remove a dark blot from this portion of society. It would be difficult to find an average state of intelligence so low as that exhibited by the answers to the questions addressed to these children. A very small proportion can be said to have been taught. The ignorance of a great many, indeed, considering their age, and that they live in the midst of a society keenly alive to social and political duties, cannot be contemplated without pain and sorrow."

Of the physical effects produced by the occupation, the report says they suffer from

"The usual and various results of intense labour and

bad air; but the peculiar disease is the phosphorous disease, or necrosis of the jaw."

Dr. Letheby, speaking of this disease, says:—

"The pain is followed by inflammation of the jaw, abscesses about the gums, and finally necrosis. It is in many cases followed by death; in others by the removal of the jaw by surgical operation."

Mr. Pegge says:—

"The sufferings of a patient in the earlier stages of the disease, until the jaw be quite dead and exposed, are intolerable."

This evidence is confirmed by several other eminent surgeons; among them being the late Mr. Stanley.

About one hundred and fifty children and young persons are employed in the percussion-cap manufacture. The condition of these children may be summed up in the words of Mr. White, the inspector—

"The manufacture is very limited in extent. It is carried on mainly by female labour, including that of many young girls, and is, perhaps, the most dangerous of all general manufactures. An explosion occurred in Birmingham three days after the visit of the inspector, which caused the death of nine persons, and wounded upwards of forty, many of whom were young girls."

The next trade adverted to by Lord Shaftesbury was the paper-staining, in which the total number of children and young persons engaged is 1150. The effects of the work are thus described:—

"The labour itself" (says Mr. Lord) "is not injurious, but it is made so by the length of overtime."

Next comes fustian-cutting, in which the numbers under the age of 18 employed is 1563, the hours of work being fourteen hours daily, but oftentimes, "to bring up arrears," eighteen or twenty hours.

Then there is a very important branch of industry, which is the machine lace finishing, which employs no less than 10,000 children and young persons in various factories. The state of the work-places is spoken of by Mr. White as being—

"Generally injurious to health, hot and ill-ventilated. He has noticed crowded places, in which the space gave only 100, 92, 90, and even 67 cubic feet for each person, it being considered necessary to give a soldier in barracks from 500 to 600, and patients in hospitals 1200 each."

In the pillow-lace making, children of five years and younger are engaged. They

"Suffer considerably in health, from closeness of confinement and bad air, as well as in their eyesight from the mode of working."

In the country, it appears that the number of climbing-boys is on the increase, while in London, with a population of 3,000,000, there are but one or two to be found. The number of these climbing-boys is 2000; and they begin to work about eight years of age—some as young even as five. In the smaller towns, the hours of work vary from eight and nine hours a day; in the larger towns, from twelve to sixteen. These boys are (the report tells us), in the first place, subject to a most frightful disorder

called the chimney-sweeper's cancer. Mr. Ruff of Nottingham, who was himself a master sweep, gives the following testimony on this point:—

"No one knows the cruelty which a boy has to undergo in learning. The flesh must be hardened. This is done by rubbing it chiefly on the elbows and knees with the strongest brine, close by a hot fire. You must stand over them with a cane, or coax them with the promise of a halfpenny, etc., if they will stand a few more rubs. At first they will come back from their work with their arms and knees streaming with blood; then they must be rubbed with brine again."

Another master sweep, Mr. Stansfield, says:—

"In learning a child, you must use violence that I shudder to think of."

"These poor children are bought, sold, and leased by their parents and guardians."

"They are as completely slaves" (says Mr. Ellis, a magistrate of Leicester, "as any negro children in South Carolina."

Another master chimney-sweep says:—

"I have hired a lad for £1 a-year; and I have bought lads myself, giving the parents so much a year further."

Great efforts have been made in Scotland to suppress this system, and have been successful. Such is a portion of the work which, as Lord Shaftesbury says, is cut out for the next Parliament.

TAKING THE BENEFIT OF THE MEDICAL ACT.

At another page will be found the summary of an action, in which Dr. Snow Beck figures as the plaintiff. Of the claim made by him for professional services rendered, Judge Bramwell said, "a more outrageous one had never been brought into a court of justice." Dr. Snow Beck has gained no professional credit, and, we are glad to say, no pecuniary profit, by bringing such an action. A daily paper thus remarks upon the proceeding:—

"The jury found at once for the defendant; and the learned practitioner—who has introduced the plan of kidnapping people into liabilities for heavy bills by maintaining with them the relations of friends and guests—has been taught that such scandalous practices are not sanctioned by English law, nor encouraged by English judges and juries."

Our professional brethren seem to be taking the benefit of the Medical Act extensively. Another case of claim for services has this week to be recorded—a *post mortem* claim made by Freund v. Boldermann.

"It was an action by a German physician against the administrator of a clerk, who died in December 1862, to recover a sum of above £130 for medical and surgical attendances upon him for four years preceding his death. The physician lived at Finsbury; the patient at Pimlico; and the alleged attendances were at the residence of the plaintiff, he never having, as he stated, known his patient's address, and never having delivered any account during his patient's lifetime. He admitted that he had been paid for the first four or five attendances, and he alleged that the deceased had excused himself from further payments on various grounds. He stated, however, that he spoke to him repeatedly about payment, and he

assigned this as the reason why he had not sent his account in during his patient's lifetime. Upon his death he claimed £125, and, on payment being refused, brought this action, in which he claimed £131. The sum of £25 had been paid into court. The defence was that the rest of the claim was false and fraudulent, though there had been a basis of truth for it to the extent of the sum paid into court.

"The learned Judge told the jury that, to find for the plaintiff, they must come to the conclusion that he had rendered professional services to the deceased not satisfied by the sum paid into court. No doubt there was his positive oath, and his evidence was to a great degree corroborated by the servants. There was further corroboration by the evidence of the chemist, and the confirmation was strong. But, on the other hand, there was the very striking and remarkable fact that there had been no written claim or account during the life of the patient; and the absence of all this was not accounted for satisfactorily; for even though a man were not in a position to pay, that was no reason why accounts should not be sent in. Still less was it accounted for why there should have been no books and entries of the attendances. No sooner, however, was the breath out of the man's body than this claim was made, to so serious an amount. There were singular circumstances in the case, and it had its difficulties; and prescriptions were not produced on either side. It was one entirely for the jury to determine. The jury, after a brief consideration, desired to retire, and, after being absent some time, found a verdict for the plaintiff for £25 additional."

How far claims of this kind will exalt our profession in the eyes of the public, we leave our readers to guess.

THE WEEK.

THE executors of the late Lord Henry Seymour have announced to the London Hospitals, that it is now the time for them to put in their claims to a share of the colossal sum—it may be £400,000 or half a million of money—left to the *Hospices de Paris et Londres*, under the will of the above named nobleman. The mouths of the legal gentry are already watering at the prospect which this announcement opens to them. And certain is it that, if great discretion, forbearance, and wisdom be not exercised by the London Hospitals, a very large share of this money—if not the whole of the oyster—will find its way into the pockets of the men of the long robe. The money is left to the *Hospices* of London and Paris; and if the Hospitals—of all descriptions in London—themselves cannot agree to a satisfactory definition of the term, the law will have to discover its meaning for them; and, as we have said, will probably reduce the legacy to one-half before it arrives at any conclusion as to the real value of the term. Hospital governors should recollect the tale, as told lately by Lord Palmerston, of the Hartley Charity at Southampton. The lawyers had just half of that enormous sum. True wisdom, in this case, should teach the *Medical Hospitals* to be very generous, and allow a fair share of the sum to go to all the old

Hospitals, whether mere almshouses or not, rather than fritter away such a glorious legacy as this in a legal squabble. The executors have written to all the Hospitals, etc., of London, informing them of the legacy, and asking whether they consider they come under the term *Hospices*, and, if they do, to send in their claim. But this is not the only knotty question arising out of this will which has to be decided. The testator has also devised money to what is termed in the will, *Hospice de Lunatics de Londres*. Surely, the lunatic asylums—the charitable lunatic asylums—had better draw lots for or divide the money, than go a-fighting at law over it. The men of law often laugh at medical practice; but we venture to say nothing has been done in physic more profoundly stupid than the framing of the terms of these legacies. They were manufactured, we suppose, by a French lawyer; but he might have had wit enough, one would have thought, to ask the advice of an English lawyer in the case. At all events, no professional will-maker could, with malice prepense, have more effectually cut out work and profit for his class than the maker of this will has unwittingly done. Here are the terms of the Decree:—

“Pursuant to a Decree, an inquiry is to be made what is the effect, according to the law of France, of the residuary bequest to the Paris and London Hospitals (*Hospices de Paris et Londres*) contained in the will of Lord Henry Seymour, late of Paris (who died in August 1859); and what institutions are, according to the law of France, meant by the word ‘*Hospices*’; and what institutions are entitled in France and England to the residuary bequest contained in the will; and what institution was meant by the London Lunatic Hospital (*Hospice des Lunatics de Londres*). All claimants are, on or before the 9th of November, 1863, to prove their claims at the chambers of the Master of the Rolls.”

OVARIOTOMY had been performed three times in Ireland, but never with success until last week, when Mr. Spencer Wells operated on a lady, 55 years of age, who has since progressed towards recovery in a most favourable manner. The operation was witnessed by Drs. Corrigan, Beatty, Churchill, and other leading practitioners of Dublin; and by Dr. Mackesy of Waterford. Two other operations have been performed since, a full report of which will appear in due time. Very great interest was manifested in these cases by the profession in Dublin; and they will probably have a considerable effect on the progress of ovariectomy in Ireland.

M. BLONDIN naturally defends his trade of rope-walker. Accidents therefrom, he says, arise solely through the spurious imitations of those incapables and uneducated who attempt this flight in high art. But M. Blondin forgets one thing: viz., that the key to the success of his business is to be found in the fact of the brutal and brutalising excitement

awakened in the minds of the spectators, at the appearance, if not at the reality, of the danger incurred during his performance. It matters little, comparatively speaking, to society, whether or not the rope-walker breaks his neck. That is mainly his affair. What we object to, and have always objected to, in the business, is the debasing influence which such sights exercise over the minds of the members of society who have a thirst for this kind of excitement. Bull-fights and high rope-dancing may go well together; for they are equally demoralising. We trust, therefore, that M. Blondin will leave these performances behind him in Spain; and, as he promises, stick in future to the low rope on his return to England. His physical descent will be his moral elevation in the estimation of all good citizens.

M. NÉLATON proposes and practises a new method of cauterisation, using a fine jet of flame, produced by the combustion of ordinary gas, for the purpose. The actual cautery, we are told, is replaced by this small flame, which is projected from a thread-like tube, is about fifteen *millimètres* long and two or three in diameter, and may be handled as readily as a pen or a stick of lunar caustic. The actual cautery rapidly cools down, is larger than required, and creates much vapour and smoke when applied, and so conceals from view what is going on, and moreover is a formidable and horrid looking affair. The flame, on the contrary, burns calmly and equably, and may be applied exactly where it is wanted. No hæmorrhage follows the flame, the coagulation taking place in the deep vessels of the part. The deep effect of the flame is remarkable. A minute application to muscle will carbonise it to the depth of half a *centimètre*, and disorganise as much more of the tissue beneath. Bones are rapidly destroyed; in two or three minutes the two layers, the compact tissue, and the diploë of the tibia, were reduced to an earthy mass. An open artery attacked by the flame is folded up on itself. In this way, according to M. Nélaton, we can produce in a very short time, and with the simplest apparatus, over which we have complete control, much greater effects than can be produced by the most powerful cauteries of classic surgery, not even excepting those resulting from the use of the electric battery. An elastic bag containing the gas is employed, which bag is subjected to moderate pressure.

Baron Barbier has left a *rente* of 2000 *francs* for the founding of an annual prize, to be given to “him who invents an operation, instruments, bandages, apparatus, or any mechanical means, recognised as of general utility, and superior to any previously employed.” This prize will be adjudged in November next.

CIVIL SURGEONS' PAY IN INDIA.

THE following letter (taken from the *Englishman*, an Indian journal), which we are assured states the bare truth, explains clearly enough the cause of the unpopularity of the Indian medical service. We recommend it to the serious consideration of those gentlemen, who may have an ambitious desire to distinguish themselves, or obtain a livelihood in India.

"I beg to supply you with a *verbatim* copy of the pay bill of a civil surgeon for the month of April last:—

	Rupees		
Civil Surgeon's pay for April 1863 ...	330	0	0
Vaccination allowance ...	20	0	0
Total ...	*350	0	0

Deduct subscription to Medical Retiring Fund ...	36	10	0
Do. Do. Military Fund ...	12	8	0
Do. Orphan Fund ...	6	4	0
Do. for 3 children ...	5	0	0
Income Tax ...	10	0	0

70 11 0

Total Recd. ... Rs. 279 5 0

"Out of this sum the following unavoidable expenses have to be defrayed:—

House-rent (for the cheapest house in the Station) ...	75	0	0
Choicedaree Tax ...	2	8	0
The keep of a couple of horses (the smallest number with which the Civil Surgeon's duties can be performed) ...	47	0	0
Pay of a Baboo to write official letters ...	10	0	0
Total ...	134	8	0

"The sum of Rs. 144-13-0 is left to meet servants' wages, bazar expenses, and every other call upon his purse to which a man, with a wife and three children, is liable.

"Let me add a memorandum of some of the duties to be performed for the above magnificent remuneration:

"1. Medical charge of a jail, containing between seven and eight hundred prisoners, each of whom has to be inspected weekly; the charge involves the examination of all articles used for the prisoners' food, all sanitary and conservancy arrangements, and daily visits to the hospital.

"2. Medical charge and general superintendence of a charity hospital, every surgical operation of which must be performed by the civil surgeon himself, for want of any one else who can do it. I must not omit to say that for this duty he receives palky allowance at Rs. 28-14 per month, exclusive of income-tax.

"3. The management of all the accounts and correspondence in the government school.

"4. Medical charge of some three hundred approvers kept by the dacoity establishment.

"5. The superintendence of lock-ups at five sub-divisional head-quarters, and of charity hospitals at two of them, involving a correspondence which is multiplied by the stupidity and carelessness of inefficient subordinate officers.

"6. *Post mortem* examinations in all cases of murder, suicide, or suspected death (sometimes as many as six

or seven in the week, in all stages of decomposition) reported throughout the district.

"7. A visit twice or three times per annum to each of the sub-divisions, for which travelling allowance is given at 2 annas a mile, being less than the journeys actually cost.

"8. Medical charge of the government training school, the officers of police court, amlah, telegraph establishment, etc.

"Allow me to add, in conclusion, that the above description is that of the pay and the duties of an officer who ranks as a major in the army, and after a service of nearly thirteen years.

"June 7th, 1863.

AN EXILE."

Correspondence.

SUPPORTING THE PERINÆUM: THE ABDOMINAL BANDAGE.

LETTER FROM JOHN RUSSELL, ESQ.

SIR,—It would seem that the subject of abdominal swathe after labour, and protection of the perinæum during the passage of the child's head, had been almost ventilated to exhaustion; and the subject of protection of the perinæum underwent such a thorough digest some time ago by Dr. Graily Hewitt, that there would appear little room to add more on the subject. And it is only to suggest a mode of protection, which was not embodied in those papers, that has induced me to offer this communication.

Judging from my own attempts to retard the advancement of the head, I believe it to be impracticable (at any rate for any benefit.) For supposing that by applying direct force to the prominent part of the child's head you retard its progress; such pressure opposed by the *vis a tergo* must necessarily tend to shorten the long, and increase the short, diameter of the cranium, and thereby cause greater distension of the perinæum. I never have myself had a ruptured perinæum in practice, during the passage of the head in a natural presentation although I have attended patients in whom ruptures had occurred in former labours. My plan has always been to carefully watch the advancement of the head, and as it passes the edge of the perinæum, to compress it with the points of the fingers (generally supported by the other hand), placed immediately anterior to the perineal margin, forcibly upward against the pubes; carrying the fingers back as the head advances; taking care not to entangle the perinæum between the fingers and head, and guarding especially against any injury by the finger-nails; and relaxing the pressure during the intervals of relaxation of pains. By these means the elastic cranial bones will be found to yield under the fingers, relieving the centre from all pressure, and leaving a space between it and the head; and the secondary effect is to transfer the strain to the sides, and on those points of the perineal edge, where in cases of threatened rupture, the bilateral section has been recommended.

We observe that where nature anticipates unusual distention of any part, she directs an additional quantity of blood to it; and in no case is this fact more apparent than in the vulva, in anticipation of parturition. From this we may infer that, blood is necessary for the distention of integument, etc. And the effect of pressing against the child's head through the perinæum, as has been recommended, must be to express the blood, and thereby lessen the elasticity of the parts.

Such strong conviction seems to have taken possession of the minds of both advocates and opponents of

* A Rupee is about 1s. 10d.; and contains 16 annas.

the abdominal swathe or binder, that it puzzles one to imagine from what data the observations have been formed. And if neither party be wrong, the instrument must be simply inert and useless. If such were rightly the explanation, the subject might be left as it is.

The ends which it may be expected to serve, are, I conclude, 1. To assist the recently very much distended abdominal muscles and the integuments covering them, to regain their ordinary dimensions and lost tone more rapidly than they otherwise might; and while this is being accomplished, to act as a substitute by exerting pressure on the abdominal and pelvic viscera; and as some ladies have been led to believe, to prevent or lessen the alteration in their figures, which might otherwise ensue. The latter idea is a mere phantom, as any effect that it might exert, would be equally powerful in two months, as immediately after delivery. For observation teaches that in all parts of the body, the integuments and muscles are always disposed to contract in proportion to the pressure underneath them, as resistance may be removed. This principle we see illustrated in emaciated subjects; in amputations in which at the time of the operation the flaps have been baggy and unsightly, but which in all cases that I have seen, have contracted to the form of the subjacent parts and formed, what have been called (by licence of surgery) *beautiful stumps*. The same takes place with the scrotum after castration, as we see exemplified more particularly in the brute creation. I am, therefore, led to doubt the correctness of the conclusion, that the binder exerts any influence in producing contraction of the abdominal muscles. The tendency of contraction of the abdominal muscles as exerted at intervals, is to expel the contents of the pelvic viscera, and sometimes the viscera themselves or a portion, as exemplified in cases of prolapsus ani; and, I think, I may adduce prolapsus uteri. And no one would, I think, upon reflection, use an instrument in imitation of such action in such direction, while the uterus occupies such a very delicate position as it must do for many days after delivery. A friend lately told me that patients, who in former labours had worn a swathe, expressed themselves as deriving much comfort on its being discontinued.

2. The pressure which it may exert on the uterus is useful. The fundus uteri, immediately after delivery, will ordinarily be felt to reach to a line about an inch higher than the wings of the ilia, so that a binder applied with the view of restoring the waist would impinge on the fundus uteri and force it downwards, encouraging prolapsus uteri. Some practitioners have told me that they apply the swathe round the false pelvis and hypogastrium. If any pressure should be brought to bear upon the uterus in this situation, it must necessarily interfere with the distention of the bladder. The above arguments will, undoubtedly, be well weighed in the minds of others. But they force my own mind to the conclusion that, the abdominal binder after labour cannot be otherwise than injurious.

I will now say a few words on the mode of performing vaccination. My presumption is based upon very extensive experience in past years, having on some occasions vaccinated as many as seventy children during a morning. I recommend the plan of scarifying with (not, as Dr. Graily Hewitt recommends, a sharp lancet, but) one but moderately sharp—by which wider scratches will be produced, and less blood flow. The spot should be freely scarified till blood begins to show in a few of the scarifications. The blade of the same lancet should then be charged with lymph, and (as it were) the same spot be rescarified. This plan has the advantages of producing a large compound and confluent vesicle, is very expeditious, produces but little or no pain, and will be found to be highly successful.

I am, etc., JOHN RUSSELL.

Exeter, August 1863.

Medical News.

UNIVERSITY OF LONDON. Preliminary Scientific M.B. Examination for Honours.

Chemistry and Natural Philosophy.—Second Class.

McDougal, Arthur, Owen's
Bushell, Stephen Wootton, Guy's Hospital
Kelly, Charles, King's

Third Class.

Adams, Arthur Bagley, London Hospital
Maybury, Augustus Constable, St. Thomas's
Wintwell, John Maude, University
Brown, James Catapnell, University of Aberdeen
Wagstaffe, William Warwick, St. Thomas's Hospital

} Equal.

Biology.—First Class.

Howse, Henry Greenway, Exhibition and Gold Medal, Guy's

Second Class.

Brown, Charles Campbell, University of Aberdeen

Third Class.

Dyer, William Turner Threlton, King's

APOTHECARIES' HALL. On August 20th, the following Licentates were admitted:—

Carter, Richard, Newbury, Berks
Challen, John Furnell, Alpha House, Old Kent Road
Evans, Thomas Griffith, Narberth, Pembrokeshire
France, George Henry, Hightown, near Leeds
Howes, Frank Charles Plumtre, Belton, Great Yarmouth
King, Francis, Southampton Row, Russell Square
Long, Charles Frederic, Ipswich
Redfern, Thomas, Chesterfield
Wood, Francis Henry, New Romney, Kent

At the same Court, the following passed the first examination:—

Hayward, John William, Guy's Hospital

ARMY MEDICAL SERVICE. List of the candidates who were successful at the Competitive Examination in February last, and who have passed through a course at the Army Medical School.

Names.	Studied at	No. of Marks.
Chandler, Edward	London	4955
Creyk, William, M.B.	Aberdeen	4737
Venning, Edgcombe	London	4500
Brebner, Alexander, M.D.	Aberdeen	4458
Nash, William, M.D.	London	4385
Dudley, William Edmondson	Dublin	4283
Doig, Alexander	Glasgow	4125
Martin, Henry Arthur	London	3980
Quinton, William West, M.B.	Dublin	3959
McNalty, George William	Dublin	3924
Martin, William Thomas	Dublin	3821
Davis, John Norman	Galway	3772
Page, William John	Dublin	3653
Ferguson, Frederick, M.D.	Dublin	3628
Segrave, Richard George	Dublin	3013

APPOINTMENTS.

CHURCHILL, Augustus H., Esq., appointed House-Surgeon to the Wallace Dispensary, Birkenhead.
FERGUSON, George, M.D., appointed Surgeon to the Royal General Dispensary, Bartholomew Close.
HANDYSIDE, Peter D., M.D., elected Lecturer on Anatomy at Surgeons' Hall, Edinburgh.

*HOUSSELL, H. Strangways, M.D., appointed Physician to the Torbay Infirmary.

*JACKSON, J. Hughlings, M.D., appointed Assistant-Physician to the London Hospital

WALKER, Joseph, M.D., elected Dental Surgeon to the Westminster Hospital.

POOR-LAW MEDICAL SERVICE.

BRAXTON, Jonathan, Esq., to the Workhouse of the Whitehaven Union.

CLARIDGE, Charles Henry, Esq., to the Fulham Town District of the Fulham Union.

CLARKE, Joseph, Esq., to the Baillieborough Dispensary District of the Baillieborough Union, co. Cavan.

DIVER, Ebenezer, M.D., to the Heckfield District of the Hartley Wintney Union.

ENGLEHEART, Stephen Paul, L.R.C.P.Ed., to District No. 2 of the Bromley Union, Kent.

FELCE, Stamford, L.R.C.P.Edin., to District No. 2 of the Launceston Union.

HARDING, Charles F., M.D., to the West Woolwich District of the Greenwich Union.

HIRST, Charles, L.R.C.P.Ed., to the West Ardsley District of the Wakefield Union.
 MACDONALD, John Edward, Esq., to the Tuosist Dispensary District of the Kenmare Union, co. Kerry.
 MERRYWEATHER, J. Hutchinson, Esq., to the Guisborough District and the Workhouse of the Guisborough Union, Yorkshire.
 O'CONNOR, Martin, L.K.Q.C.P.I., to District No. 5 of the North Wiltford Union, Cambridgeshire.
 OWEN, George, Esq., to the Leanwin District of the Machynlleth Union.
 RENSRAW, Charles J., M.D., to the Ashton-on-Mersey District of the Altrincham Union.

ROYAL NAVY.

ROCHE, William S., Esq., Surgeon, to the *Charybdis*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers).—

MATTHEWS, B. P., Esq., to be Assistant-Surgeon 18th Kent R.V.

To be Honorary Assistant-Surgeons:—

CLOWES, F., Esq., 14th Norfolk R.V.

DEATHS.

DOUGLASS. On August 15th, at 14, Bernard Street, aged 55, Eliza Ash, widow of James N. Douglass, M.D.

HIDERSHON. On August 14th, at Hastings, aged 3 months, the infant son of S. O. Hidershon, M.D., Wimpole Street.

LAYNG. On August 20th, at Broadstairs, Isabella, wife of Edward Layng, Esq., Surgeon.

PRESTON, Richard, Esq., Surgeon, Stand, near Manchester, aged 62, on August 20.

SPARROW. On August 19th, at Portsea, aged 6 months, Georgina, youngest son of the late George W. P. Sparrow, M.D., Surgeon 60th Rifles.

STEWART, Alexander, M.D., Inspector-General of Army Hospitals, at Lansdowne Road, Kensington Park, aged 73, on August 23.

STUART, Robert, M.D., at Calcutta, aged 53, on July 8.

ALLEGED SUICIDE OF A NAVAL SURGEON. Dr. Galbraith, surgeon of the *Sebastopol*, is reported to have committed suicide off New Zealand.

IMPORTATION OF OPIUM. For the year 1864, 27,000 chests of Patna opium, and 20,000 of Benares, are calculated by the *Scindian* as forthcoming.

DR. MACLACHLAN, chief medical officer of Chelsea Hospital, has retired from office through illness. The duties of the Chelsea Hospital medical staff have been consequently amalgamated with those of the Military Asylum.

A TRIUMPH OF SURGERY. His Majesty the King of the Belgians is enjoying excellent health at Ostend. He makes frequent excursions on horseback in the neighbourhood of the town.

LONGEVITY IN IRELAND. Among the 5,798,967 persons enumerated in Ireland at the census of 1861, no less than 742 are returned as being of the age of 100 years and upwards. 278 of these aged persons were men and 464 were women.

SURGICAL PRACTICE. It is officially stated that the total number of Federals wounded in the three days battle at Gettysburg is about fourteen thousand. A fraction over two thousand wounded still remain in the hospitals there.

THE LATEST USE FOR PETROLEUM. An assistant surgeon, writing from Gettysburg, says:—"Will you allow me, as one alleviation of the horrors of the battlefield, to call your attention to the use of coal oil in suppurating wounds? As volunteer assistant, I received permission from the surgeons of the First Division of the Fifth Corps, Gettysburg, to use it in the most offensive cases. By its manifest utility, and the solicitations of the wounded, I was induced to enlarge its use until I became satisfied that what cold water is to a wound in its inflamed state, coal oil is to it in its suppurating state, dispelling flies, expelling vermin, sweetening the wound, and promoting healthy granulations. It can be used by an assistant of ordinary judgment with perfect safety, and to the great comfort of the patient. I have seen two patients, whose wounds had been dressed with it, asleep before I was through with the third." (*Missouri Democrat*.)

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. On Wednesday last, Sir William Armstrong opened the proceedings of this Association with an eloquent address to one of the most brilliant audiences ever assembled in Newcastle-on-Tyne.

BOVINE DISEASE, AND HOW TO CURE IT. From Rome we hear of the ravages made by the distemper among the cattle in the Campagna. It is calculated that more than ten thousand beasts have fallen victims to the malady since it set in. No measures of an efficacious nature have been taken to check it by the Papal government. There have been religious processions, *neuvaines*, and the like, in the hope of averting the evil, but as yet they have not produced the desired effect.

YANKEE ENROLLING SURGEONS. We have noticed the fact that the enrolling surgeons, with many honourable exceptions, were mere political doctors, and totally unfit for their position. The evidences of their incapacity begin to appear as the conscripts gather at their rendezvous. From authentic sources, we learn that the most obvious diseases are passed over without notice. At Riker's Island, the rendezvous for the eastern part of the State of New York, are men suffering from cardiac diseases, amaurosis, etc. (*American Med. Times*.)

DEATH OF THE INSPECTOR-GENERAL OF ARMY HOSPITALS. Alexander Stewart, Esq., M.D., Inspector-General of Army Hospitals, died at his residence, Lansdowne Road, Kensington Park, on the 24th inst. He was in his seventy-third year. He accompanied the army, and served with considerable distinction, during the Peninsular campaign. He was present at several of the severest actions, when his professional services were eminently useful. In December 1845, he was appointed Deputy Inspector-General, and in March 1852, Inspector-General, when he retired on half-pay. He had the war medal and clasps for the battles at which he had served.

MORTALITY IN THE UNITED STATES. Mr. Kennedy computes the annual number of deaths in the United States as having been 1 in 45 or 46 of the population: and when allowance is made for the greater proportion of persons in their prime amongst this population, by reason of constant immigration, the mortality will nearly equal that of England, if the latter is rightly estimated by Mr. Kennedy as being 1 in 44 of the population. Much interesting information is given respecting the deaf and dumb, the blind, the insane, and the idiotic. According to the census of 1860, the deaf and dumb portion of the population amounted to some 15,077 persons, whereof 14,269 were whites, and 808 slaves; the blind to 12,635, 11,125 free and 1,510 slaves; the insane to 23,999, 23,593 free and 406 slaves; and the idiotic to 18,865, 17,286 free and 1,579 slaves.

SURGICAL CERTIFICATES. According to a Connecticut journal, the *Hartford Times*, the exemptions by surgeon's certificate of draughted men since the commencement of the draught in New England amount to the enormous proportion of seventy-three per cent.! The amount of fee given for this service is variously estimated. If a man be very poor—and the surgeon also—a glass of whisky is sufficient *honorarium* to offer and accept. But, as a general rule, the price varies with the worldly circumstances of the person "who will not be a soldier," and ranges from one to twenty dollars. The would-be exempt is stripped—and if the surgeon find a greenback between the man's toes, under his arm-pit, behind his ear, between his teeth, or elsewhere, the matter becomes as clear to his capacity, as it previously was to that of him who does not wish to risk his life for his country, and the business is settled to the mutual satisfaction of doctor and patient. But the dishonesty does not answer its purpose, the government having resolved to admit of no exemptions but such as are signed by its own appointed army surgeons.

UNITED STATES POPULATION. In 1860 the population amounted to 31,415,089, showing in round numbers an increase of 8,250,000 over that of 1850; of 13,333,000 over that of 1840; of 18,500,000 over that of 1830; of 21,750,000 over that of 1820; of 24,200,000 over that of 1810; of 26,000,000 over that of 1800; and of 27,500,000 over that of 1790, when the population only amounted to 3,929,827. The average decennial rate of increase was 34.6 per cent. Of the entire population 26,975,575 were white, and 4,441,765 coloured, and of these latter 3,953,760 were held as slaves. While the whites, between 1850 and 1860, gained 38 per cent., the African race increased only 22 per cent., though it must be remembered that during this period some 1,500,000 immigrants entered the United States. Unlike the census returns of England, those of the United States, as published by Mr. Kennedy, give an excess of males over females of 750,000, which was attributable to the greater influx of male immigrants from Europe.

PAUPER LUNATIC ASYLUMS. On the day of the promulgation an act was passed to amend the Lunacy Acts, in relation to the building of asylums for pauper lunatics. It is enacted that where, in pursuance of the Lunatic Asylums Act, 1853, an agreement for providing a common asylum has been duly entered into between divers counties properly so called, and such agreement has been afterwards varied by the admission as a party thereto of a county of a city, or county of a town, the original agreement is to be binding on the counties originally parties thereto, in the same manner as if no variation of such agreement had been made. By section 8 of the 25th and 26th of Victoria, c. 88, the guardians of a parish were to make provision for the reception of "chronic lunatics," and doubts have arisen as to the meaning. It is now declared that chronic lunatics are to include those chargeable to other parishes or Unions, as well as the chronic lunatics chargeable to parish or Union into the workhouses of which they are proposed to be received.

A NEW TEST FOR ALBUMEN. Mr. Lightfoot has found that the aqueous solution of camphor is a delicate test for albumen, which it coagulates as a film, and in other interesting forms. Into a perfectly clean foot-glass some water is poured, and one or two bits of camphor are dropped upon it from a tube. When rotation has been established for a few minutes, one drop of fluid albumen from an egg is allowed to fall upon the surface, and to remain undisturbed for a few minutes. On looking at the underside of the water surface, a fine film of uniform thickness will be seen to occupy the whole surface of the liquid, and to imprison the bits of camphor which have, in consequence, lost their power of roaming about by this mechanical impediment of the albuminous sheet. The camphor is, however, still vibrating. If the film be now broken, it will hang in shreds or fall down and settle at the bottom of the glass. It is sufficiently coagulated to permit its separation by a paper filter, which, after drying carefully, may be weighed. By this process minute portions of soluble albumen may be quantitatively estimated in analytical investigations of various organic matters. As a microscopic test, an aqueous solution of camphor will be found of great use in rendering delicate organs of minute structure more distinctly visible. (*Chemical News.*)

SCOTTISH REGISTRAR-GENERAL'S REPORT. The report of the Registrar-General for Scotland for the second quarter of 1863 records a very high birth rate—namely, in the annual proportion of 383 births in every 10,000 of the estimated population. But the death rate was high also—231 per annum in the 10,000. Again a fatal epidemic of measles has followed an epidemic of small-pox, and it is noticed as an additional reason for securing the people from small-pox by vaccination, since it may happen that by extinguishing small-pox we may also be re-

ducing the fatality from measles. Diphtheria has prevailed extensively in Scotland, and in several instances almost assumed the epidemic form. The weather during the quarter was distinguished by more humidity and less sunshine than usual, and the continuance of this weather almost without interruption for nearly two years seems to have produced debility or laxity of the constitution. It would seem that changes in weather are as beneficial to health as changes in diet. The excess of births over deaths in the quarter was 11,704, making the natural increase in the population of Great Britain 82,940; but emigration took away a third of this number of British-born subjects. It speaks well for the general prosperity of Scotland that the marriage rate has been above the average in both the first and second quarters in the present year.

SOCIAL SCIENCE CONGRESS AT EDINBURGH. The seventh annual meeting of the National Association for the Promotion of Social Science is to be held at Edinburgh. The opening address will be delivered on October 7th, by Lord Brougham. The business of each of the six following days will be opened by addresses from the presidents of the different departments; and, after the address, the sectional meetings will be held in the Law Courts and Free Assembly Hall. The concluding general meeting will take place in the Church of Scotland Assembly Hall, on Wednesday, October 14th. The Council will meet in the library of the writers to the signet, and the Parliament House will be opened as a reception room, the College and law libraries and other public buildings and places of exhibition will be opened to members during the week. Conversazioni will be held in the University, in the Museum and Hall of the Royal College of Surgeons, and in the National Gallery, on the evenings of the 8th, 9th, and 12th. A working men's meeting will be held in the Corn-Exchange on the evening of the 9th, at which Lord Brougham will preside; and on the 13th, the Association dinner will take place in the Music Hall. The Royal Scottish Academy intend to hold an exhibition of the works of deceased and living artists of Scotland, collected for the occasion, during the meeting of the Association. The Speculative Society of Edinburgh propose to celebrate the centenary of their foundation by a dinner, to be presided over by Lord Brougham, who was one of its most active members about sixty years ago. The Scotch railways, generally, have agreed to give return tickets to members and associates, and the leading English lines will afford facilities to visitors through their tourists' tickets.

LIVERPOOL HEALTH COMMITTEE: TRIBUTE TO DR. CAMERON. The following flattering and handsome acknowledgment of services rendered by Dr. Cameron, in his capacity of Acting Medical Officer of Health at Liverpool, was made at the last meeting of the Committee:—"The Chairman said, before the Committee proceeded with the public business of the day, he would call attention to the appointment of Dr. Trench. That fact would sever the connection between Dr. Cameron and the Committee; and he was sure that every gentleman would bear him out, when he said that the Committee were deeply grateful to Dr. Cameron for the very cheerful way in which, immediately upon the decease of Dr. Duncan, he had stepped in to fill up the vacuum, and had since that time voluntarily fulfilled the duties of Medical Officer of Health. The great exertion, scientific acquirements, and the sacrifice of time that Dr. Cameron had brought to bear to the discharge of the duties of the office, were such that he (the Chairman) was sure he only spoke from his heart the sentiments of the Committee (*hear, hear*) when he said they were all deeply indebted to Dr. Cameron for his assistance; and he therefore moved—"That this Committee desires to record the high sense entertained of the very valuable and

efficient services rendered by Dr. Cameron as Acting Medical Officer of Health since the death of Dr. Duncan, and beg to render their thanks to him for those services, which he so kindly undertook to perform, under circumstances that must have involved a great sacrifice of time and labour.' (*Hear, hear.*) Mr. Lawrence entirely concurred in every word that the Chairman had said; and moved—'That a sum of 150 guineas be presented to Dr. Cameron, as a slight acknowledgment of the very valuable services he had rendered as Acting Medical Officer of Health.' Both resolutions were carried unanimously.' (From the *Liverpool Daily Post*, July 10, 1863.)

THE PROPOSED NEW MEDICAL BILL. We are not surprised that the proposal to introduce a new Medical Bill into parliament, with clauses affecting pharmacy, and restricting the dispensing of medicines to men proved to be qualified for the duty, should have excited the attention of the pharmaceutical body; but we confess we were not prepared for the opposition that appears to be threatened to this measure. The Bill, in the form in which it has been issued, contains but a rough draught of the proposed amendments. However, it serves to explain the principles which it is proposed to carry out, and with reference to which the opinions of the licensing bodies have been asked. The objects contemplated are quite in accordance with principles which have always been recognised by the Pharmaceutical Society. The adoption of these principles has repeatedly been urged upon chemists and druggists in the pages of this journal. It has been insinuated that the Pharmaceutical Society would be benefited in some especial manner by the proposed Act, and that they therefore have a particular interest in promoting the measure. This we entirely deny. Indeed, so far is it from being the case, that we have no hesitation in saying that the measure would be a far greater boon to those who are without than to those who are within the pale of the Society. We have no exclusive interest in promoting this; on the contrary, self-interest might dictate a different line of policy; but the interests we advocate are those of pharmacy and of the whole body of pharmaceutical operatives. If the proposed Bill be carried into effect, it will necessarily cause a complete revolution in the state and practice of pharmacy in this country, involving, no doubt, many important changes in the constitution of the Pharmaceutical Society. The sphere of action for the Society would be greatly widened, but at the same time it is probable that the nature of its operations would in some respects be restricted. (*Phar. Journal.*)

SULPHURING VINES. At the last sitting of the Academy of Sciences a paper was received from M. Bouisson on ophthalmia produced by the sulphuring of vines. From the moment this practice was had recourse to for the purpose of destroying the oidium it was perceived that sore eyes became very prevalent among the labourers engaged in that work. Sulphur is employed under the form of a sublimate called flowers of sulphur, or else in a triturated state. In the former case it contains a small but perceptible quantity of free sulphuric acid; in the latter case there is hardly a trace of it; and accordingly the sublimate is infinitely more efficacious than the mere powder. Under the microscope the powder presents irregular forms ending in angles and points, while the flowers appear under the form of very small round globules; hence the mechanical action of the former is much more irritating than that of the flowers of sulphur. But mechanical irritation being less active than the chemical one of sulphuric acid on the conjunctiva or external coat of the eye, triturated sulphur is less injurious to that organ than flower of sulphur. Regarding the instruments used for the diffusion of sulphur the bellows are less hurtful to the eyes than the sieve, which scatters about a great deal of the powder in the air. A man works seven hours per day, during which

time he expends ten *kilogrammes* of sulphur. The operation lasts five days per hectare, and is repeated three or four times during the season. Sore eyes are chiefly prevalent during the last sulphuring process, showing that heat and drought increase the irritating effects of sulphur. Women and children being chiefly employed in the operation they are most subject to this kind of ophthalmia, which, however, is not malignant, and generally consists in a mere inflammation of the conjunctiva. The mixture of sulphur with lime, recently proposed, is more hurtful to the eyes than sulphur alone; but mixture of sulphur and plaster is better for the eyes, though detrimental to the respiratory organs.

VIVISECTIONS IN PARIS. The atrocities of vivisection continue to occupy the attention of the Paris papers. The *Opinion Nationale* says: "The poor brutes' cries of pain sadden the wards of the Clinique, rendering the sojourn there insupportable both to patients and to nurses. (The Hôpital des Cliniques, situated on the square of the School of Medicine, contains a hundred and fifteen beds for adults, and thirty-seven for children. Sick and wounded persons are received there as at the Hôtel Dieu. It has, moreover, a special department for accouchements.) Only imagine that when a dog has not been killed at one sitting, and that enough life remains in him to experiment upon him in the following one, they put him back in the kennel all throbbing and palpitating! There the unhappy creatures, already torn by the scalpel, howl until the next day in tones rendered hoarse and faint by another previous operation intended to deprive them of voice. The kennel in which they are kept is close to the Clinique, whither poor pregnant women betake themselves for deliverance." Mr. C. Sauvestre, who signs the letter from which the above is an extract, quotes, in confirmation of his statements, a letter addressed to M. Husson, Director-General of Public Assistance (hospitals, asylums, etc.), by a distinguished physician. "You doubtless are aware, Monsieur le Directeur," says Dr. Bossu,—"That, during the course of physiology of the Faculty, the dogs destined for experiment are shut up in the pavilions of the Practical School, which touch the hospital of the Clinique. These dogs cry and howl night and day, notwithstanding the preliminary operation performed on them with the view of rendering them mute. Will you, whose solicitude for the sick is so great, join your complaints to ours in order to obtain from the competent authorities that henceforward no more dogs shall be taken to the Practical School, and that, the repose, the sleep, the moral tranquillity of our poor lying-in women shall be respected? Assuredly it will not be said that, for the sanguinary and useless exhibitions of a course which serves only to expose the state of science, the repose of a whole hospital, and that of twenty neighbouring houses, is to be disturbed."

A PROFESSIONAL CLAIM. *BECK v. STERNE.* This was an action by the same plaintiff as in the case "*Beck v. Farey*", tried in the other court last week, and partly arose out of the same transactions. It was an action by Dr. Snow Beck to recover £591 for medical attendances, etc., on the defendant's wife and family from 1856 to 1859 inclusive. The parties had known each other since 1854, but had quarrelled. The plaintiff was called, and said he was a member of the College of Surgeons; and he had attended the defendant and his family as surgeon and accoucheur, and generally as medical attendant, during the years from 1856 to 1859, at Clapham and Stratford. When cross-examined, the plaintiff admitted that he had never sent in any account of his present claim until this action. He had been for some years intimate with the defendant, and had been recommended by him to the Samaritan Hospital, and had been a co-director with him of the Australian Investment Society; and he had been accustomed for years to dine

with the defendant. He was pressed whether he had not charged for visits when he had gone home and dined with him; and this he denied. He had been good friends with him up to 1859. He produced some little annual pocket-books, in which he said entries of the attendances were made, but in which he admitted that other matters not professional were indiscriminately entered. He said he was not a physician, though he was styled "physician to the Samaritan Hospital", and was called "Dr. Snow Beck" on his door. Pressed if he visited patients as a physician, he said he had done so, and received his guinea fees, generally, at parting. Sometimes he attended gratuitously, though not for years; and sometimes gave advice gratis to a friend at dinner. The attendances at Clapham in 1856 were generally on Sundays. He often dined there on the Sunday, and took his wine with the family. He admitted that the defendant had made him occasional presents—a present of a case of champagne and a set of diamond studs, but prior to this account. He also had a roll of linen for shirts [*a laugh*],—not very fine. He had paid, however, for all this by his medical attendance for three years. The defendant had also lent him a watch, which he had kept some time. He had dined with the defendant on Sundays in 1857-58-59; but he charged patients for attendances, though on occasions when he dined with them. He rarely went to the house without dining. He attended the family as a general practitioner; but, being then asked how he came to charge £3:3 an attendance, he said that a general practitioner could charge anything; and, when pressed as to whether a general practitioner charged even a guinea for attendance, he said he meant that he attended as surgeon and physician, and, he added, as consulting physician and surgeon. He admitted that he had brought an action against another friend for £300, for six years medical attendance; and that was after several years.—The learned Judge: It is usual, and, indeed, the rule, is it not, for a physician to be paid at the time of his attendance?—Plaintiff: It is usual; but there are exceptions.—The learned Judge: Did you ever hear of such a bill as this before?—Plaintiff: Yes, I have.—The learned Judge: Have you? Then it is more than I have.—Dr. Rogers of Berners Street, was called to prove that the plaintiff's charges were fair and reasonable. A Dr. Shorthouse, of Carshalton, and a Dr. Jones were called to give similar evidence. They admitted that general practitioners usually sent in bills at Christmas. Mr. Chambers submitted that the Medical Registration Act of 1858 did not enable the plaintiff to recover for attendances as physician before registration under that Act, which only came into operation on the 1st of January, 1859. Mr. Serjeant Shee said that Act did not preclude recovery for services as a surgeon or accoucheur before that Act. The learned Judge, however, said he was of a different opinion on the latter point, for before the Act physicians could not sue. The learned Judge ruled that he could only be entitled to recover for his services as surgeon and accoucheur before the registration. The jury said they were all in favour of the defendant. The learned Judge said he was not at all surprised at it, for in all his experience a more outrageous claim had never been brought into a court of justice. [The Secretary of the Samaritan Hospital wishes the public to understand that Dr. Snow Beck's connexion with that institution was of very short duration, and dates some years back.]

QUACKERY. Quackery is not limited to any place, time, or calling. It is found in the fashionable as well as the unfashionable dwelling places of the human family—in aristocratic as well as in plebeian quarters. Go where you please, quackery like superstition and folly, is sure to be met with. Nor is quackery a thing of recent growth. Our old ancestors practised and sup-

ported it to quite as great an extent as men now do. Monarchs in days gone by were medical quacks. They were foolish enough to believe in, or hypocritical enough to "touch" for king's evil and other maladies. And further, quackery is met with in every trade and profession. There are legal quacks and theological quacks; in short quackery is a hydra-headed monster, and one that has power to adapt itself to large or small places, to rich or poor, to the learned or ignorant, to all time and every conceivable circumstance. It is an evil, an almost unmixed evil, and as such it only produces evil. The deceptions practised by quacks, in such a district as ours, are very painful in character and number. If we take the medical quack alone as an instance, it will be apparent to every one of discernment and common sense that he must be an awful purse-sucker, and even health destroyer among those who believe in his nostrums. Scores of cases have come to our knowledge, in Merthyr, of worthless scamps forcing their vile concoctions upon simple-minded, unsuspecting people, to the permanent undermining of health. The harvest which they reap is, in most cases, a bountiful one. Taking a walk through the streets of Merthyr, Dowlais, or any of the surrounding places, the hideous, lying bills of the quack meet one at every turn, evidencing only too plainly the number of the victims, and the profitableness of the pursuit. (*Merthyr Telegraph*.)

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH. The report of the Secretaries for the Session 1862-3, states that during the past year there have been thirteen general meetings of the Association. The Association at present consists of forty-two ordinary members, medical officers of health; and of seventeen honorary members, among whom are several noblemen and gentlemen distinguished for their efforts in the cause of sanitary science. The work of the Association during the past session has not only had reference to subjects of direct local interest to metropolitan officers of health, but has embraced the consideration of several wide social questions, and has been directed to the elucidation of some general hygienic problems of great importance. The chief matters of immediate metropolitan interest were, 1. The licensing of cowhouses under the provisions of the "Metropolis Local Management Amendment Act"; 2. The sanitary inspection of bakehouses in London, legislative supervision of such establishments being advocated of the kind that has since been provided by the "Bakehouses Regulation Act"; 3. An outbreak of cholera in the Norwood parochial school, upon which a paper was read by Dr. Gavin Milroy; 4. The scheme of the Metropolitan Board of Works, for discharging into the Thames, at Fulham, the deodorised sewage of the western end of the metropolis; upon this subject a memorial was presented to the Metropolitan Board, and a deputation of the Association had an interview with that body, with the effect of obtaining a revision of the scheme and its ultimate abandonment; 5. The presence of epidemic small-pox in London. A circular has been addressed to the Boards of Guardians of the metropolitan unions, urging the necessity for increased hospital accommodation for cases of small-pox and suggesting measures to promote the universal vaccination of the community. The desirability of petitioning the Privy Council to apply to the metropolis the provisions of the "Diseases Prevention Act" of 1848 was also taken into full consideration. Upon existing impediments to vaccination a paper was read by Dr. Druitt. A series of subjects of great social importance was submitted to the Association in a paper by Dr. Lankester, on some points in common between the duties of coroner and those of medical officer of health. Arising out of this paper, the point on which immediate action seemed most desirable was the inefficiency of the present law of registration in ascertaining duly the cause of every death. A sub-ordinate of the

Association is at present engaged in pressing this point upon the Registrar-General with a view to the amendment of the registration laws. In the course of the year the Association has held communication with the Epidemiological Society, concerning a proposition to collect and utilise the statistics of pauper-sickness. Upon general hygienic subjects the Association is indebted to its President, for directing attention to the Modes of Analysis of Bread; to Dr. Murchison, for an elaborate essay on the Causation of Continued Fever; to Mr. Acton, for a paper on the Increasing Mortality in England from Syphilis; to Mr. Orton, for a communication on the Injury resulting to Health from the use of Arsenical Paper Hangings; and to Professor Gamgee of Edinburgh, for a paper on the Diseases of Animals in their Relation to Public Health. A petition to parliament was adopted in view of Mr. Gamgee's paper. This petition, which was confided to Mr. Edward Holland, M.P., prayed for a better system of inspecting cattle at places of import and in the markets, and showed reasons in support of a bill that had been recently introduced by Mr. Holland into the House of Commons for preventing the spread of contagious disorders among animals. Through the advocacy of Viscount Raynham, an amendment has already been procured in those clauses of the "Nuisances Removal Act" that relate to the seizure of diseased meat. The Association congratulates itself on having attained an important public position, and on having exercised a useful influence in promoting sanitary science.

SANITARY SCIENCE ABROAD. As I have previously stated, the impression made upon my mind by the sanitary survey of the principal health towns of Italy was unsatisfactory in the extreme. The authors whose works I have read on winter climates have, it appears to me, made an extraordinary but all-important omission. They have studied winds, sunshine, cloud, temperature, protection, and all the various elements which constitute climate, forgetting hygiene, and yet are not the laws of hygiene of more importance to the invalid than all the rest put together? Of what avail is it to place a patient suffering from a constitutional disease, such as phthisis, in the most favourable climatic condition, if every law of hygiene is violated, if he is made to live in the midst of a foul, badly drained, badly ventilated town, such as Florence, Rome, Naples, or Malaga? In these unhealthy centres of southern population, where the mortality is habitually very high amongst healthy natives (much higher, as we have seen, than in our most unwholesome manufacturing localities), what right have we to expect the general health of our patients to rally? In reality, it would be as reasonable to send consumptive patients in the summer months to live in the worst parts of Whitechapel, Liverpool, or Glasgow, as it is to send them in winter to live in the centre of these unhealthy southern towns. In choosing a winter residence, therefore, hygienic conditions should be first considered, even before warmth and sunshine. (*Dr. Bennet on Mentone, etc.*)

POPULATION STATISTICS AND METEOROLOGY OF LONDON—August 22, 1863.

[From the Registrar-General's Report.]

	Births.		Deaths.	
During week.....	Boys.. 912	1788	1337	
	Girls.. 876			
Average of corresponding weeks 1853-62	1811	1324		

Barometer:

Highest (Fri.) 29.987; lowest (Mon.) 29.564; mean, 29.758.

Thermometer:

Highest in sun—extremes (Sun.) 115 degs.; (Wed.) 83.3 degs.

In shade—highest (Sun.) 76 degs.; lowest (Fri.) 46 degs.

Mean—58.1 degrees; difference from mean of 43 yrs.—2.9 degs.

Range—during week, 30 degrees; mean daily, 17.2 degrees.

Mean humidity of air (saturation = 100), 72.

Mean direction of wind, S.W.—Rain in inches, 0.29.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

TO CORRESPONDENTS.

*. * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

DR. RIGBY'S PORTRAIT.—A subscriber wishes to know when he may expect to receive his copy of the engraving from the late Dr. Rigby's portrait. [We have received several inquiries of the same kind. EDITOR.]

LIABILITY OF MASTERS.—Will any of your readers, who may have been compelled to appeal to a County Court under the following circumstances, inform me the result. A domestic servant is sent home ill from a town where she is residing, and passes through a severe typhoid fever, requiring daily attendance for four weeks. After recovery, she returns to her duties. Can her master, who is in good circumstances, be compelled to pay the medical attendant's charge or not?—D. I.

[We do not see how any legal claim can be made on the master, unless he called in the medical attendant. EDITOR.]

PROFESSIONAL APATHY.—A correspondent asks us how it is that the profession on the occasion of the appeal last year made to them by the Therapeutical Committee, for the purposes of enlightening our knowledge concerning the effects of remedies, sent in only six or seven returns on Scarlatina and Jaundice; and about twelve on Pneumonia. The question is worthy of serious consideration, and of a serious answer.

THE ANNUAL MEETING OF THE ASSOCIATION.—The following are a few remarks on the late meeting of the Association, extracted from a leader in the *Dublin Medical Press*.

"We have now to lay before our readers the sayings and doings of another institution; which, although not strictly speaking national, is sufficiently British to justify solemn editorial recognition.... Hospitality there was, if we can call that hospitality where gentlemen entertain themselves; and splendour doubtless there was also, but where the reporter does not distinctly indicate.... That dignity and grace there was, we do not pretend to deny, and more than that, all the amenities which grace such festive occasions, with full enjoyment of agreeable social intercourse; and no wonder, considering the generous hospitality and splendid entertainment.... The progress then of the Association is satisfactory, and its numerical strength improves; so let us rejoice, albeit we in Ireland have derive little benefit from its creature comforts or its intellectual feasts.*... As an Association for the promotion and diffusion of medical knowledge, the labours of its members seem devoid of activity or energy; the contributions on the present occasion having this object in view, are few in number and deficient in quality and originality.† It is not in any unfriendly spirit that we thus call in question the character of this Society.... Never in the memory of man has there been such necessity for the interference of competent and influential bodies to avert the consequences impending from illicit proceedings and collusions between medical speculators and official authorities; and never, perhaps, less prospect of a salutary effort to resist dangerous encroachments.*"

* Strictly speaking, this is hardly the fact; because, in almost every number of the *Press*, several columns of intellectual food, taken from our pages, are served up to the readers of the Irish journal.

† Never were papers more original and better in quality presented to our annual meeting. We are sorry our contemporary was not there. Had he been, he would have sung a very different note.

‡ Why, instead of exercising the easy and useless business of fault-finding, does not the editor lend a hand to the good work?

COMMUNICATIONS have been received from:—Dr. THOMAS K. CHAMBERS; Dr. BLANSHARD; Mr. R. O. BLYTHMAN; Dr. GAILLY HEWITT; Mr. C. MARRIOTT; Dr. HARTSHORNE; Dr. WILLIAM NEWMAN; Dr. ATKIN; Dr. CAMERON; Dr. E. WELLS; Mr. J. SPROULE; Mr. H. WASEBOUGH; and Mr. J. LANCASHIRE.

BOOKS RECEIVED.

1. A Manual of Zoology. By M. Milne-Edwards. Translated from the last French edition by R. Knox, M.D. F.R.S.E. Second edition. Edited by C. C. Blake. London: 1863.
2. The Influence of Weather on Disease and Mortality. By R. E. Scoresby-Jackson, M.D., F.R.S.E. Edinburgh: 1863.
3. Special Therapeutics. By J. C. Lory Marsh, M.D. London: 1863.
4. Debate in the House of Commons on the Proposed Introduction of the Metric System. London: 1863.

ADVERTISEMENTS.

Sydenham College Medical

SCHOOL, SUMMER LANE, BIRMINGHAM (opposite the General Hospital).

The SESSION 1863-64 will commence on FRIDAY, the 2nd of OCTOBER next, with an INTRODUCTORY ADDRESS by Dr. JORDAN, at Three o'Clock in the afternoon.

Anatomy and Physiology—ROBERT C. R. JORDAN, M.D.; T. H. BARTLETT, M.B.

Practical Anatomy and Demonstration—Messrs. GEORGE ELKINGTON, FRED JONES, and DAVID JOHNSON.

Principles and Practice of Medicine—BELL FLETCHER, M.D., F.R.C.P.L., and JAMES RUSSELL, M.D., L.R.C.P.L., Physicians to the General Hospital.

Principles and Practice of Surgery—ALFRED BAKER, F.R.C.S., and DAVID BOLTON, F.R.C.S., Surgeons to the General Hospital.

Surgical Pathology—OLIVER PEMBERTON, M.R.C.S., Surgeon to the General Hospital.

Dental Physiology and Surgery—THOMAS HOWKINS, M.R.C.S.E. Chemistry—ALFRED HILL, M.D., F.C.S., Analyst to the Borough of Birmingham.

SUMMER SESSION.

Midwifery and the Diseases of Women and Children—FRANCIS ELKINGTON, M.D., Consulting Accoucheur to the Lying-in Hospital.

Materia Medica and Therapeutics—J. BASSETT, M.R.C.S.; A. J. HARRISON, M.B.

Practical Chemistry—ALFRED HILL, M.D., F.C.S.

Botany—FREDERICK WESTCOTT, Assoc. L.S.

Forensic Medicine—THOMAS SWAIN, M.R.C.S.

Medical Tutor—

Classics and Mathematics—WM. BATES, B.A.

French—

This College was established for the purpose of affording a complete Medical Education. It is situated opposite the General Hospital, so as to afford Students every advantage which can be derived from Clinical Instruction and Study in an Institution which contains two hundred and forty beds, at which more than twenty thousand patients received medical and surgical aid during the past year, and which, from its close proximity to the mining and manufacturing districts, affords opportunities for the practical study of Medicine and Surgery equal to those of any similar institution in the kingdom. It is governed by a Council composed of more than sixty of the most eminent Medical Practitioners of the midland counties. Attendance upon the Lectures and Hospital Practice will qualify for examination at the Royal Colleges, the Army, Navy, and Indian Boards. In conformity with the recent regulations of the Examining Boards, Classical and Mathematical Tutors have been appointed, as well as a General Tutor, who is in attendance daily to assist in the discipline of the College, to superintend the dissections, and to hold classes for the instruction of Students. Clinical Lectures will be delivered by the Physicians and Surgeons of the General Hospital, and Prizes are given annually for the best sets of Medical and Surgical Reports. The Chemical Laboratory is fitted with every convenience, and special care is taken to instruct the Students in Manipulative Chemistry. Ample opportunities are afforded for obtaining a practical knowledge of Midwifery. Prizes are awarded in each class, and one is given by the Council for general proficiency.

Further particulars may be obtained on application to the Principal, Dr. Bell Fletcher, Waterloo Street; to the Treasurer, Dr. Russell, Newhall Street, who is authorised to receive Students; or to the Secretaries, Mr. Bassett, 1, St. Paul's Square, and Mr. Howkins, Bennett's Hill, Birmingham.

Liquor Bismuthi, (Schacht)—a

fluid preparation of Bismuth, not decomposed by dilution. This article has been extensively used at the Bristol General Hospital, and in private dispensing, since 1857; and is recommended by many of the faculty as more efficacious and more convenient of administration than any other form of the remedy.

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St. George's Hospital Medical

SCHOOL. SESSION 1863-64.—The WINTER COURSE of INSTRUCTION will commence on Thursday, October 1st, with an Introductory Address by Mr. HENRY LEE, at 2 P.M.

Physicians—Dr. Page, Dr. Pitman, Dr. Fuller, Dr. Barclay.

Assistant-Physicians—Dr. Ogle, Dr. Wadham.

Consulting Surgeons—Mr. Caesar Hawkins, Mr. Cutler.

Surgeons—Mr. Tatum, Mr. Hewett, Mr. Pollock, Mr. Henry Lee.

Assistant-Surgeons—Mr. Holmes, Mr. Brodhurst.

LECTURERS.

Descriptive and Surgical Anatomy—Mr. Holmes, and Mr. Rouse.

Physiology and Comparative Anatomy—Dr. Wm. Ogle.

Chemistry—Dr. Noad, F.R.S.

Medicine—Dr. Pitman.

Surgery, Mr. Tatum.

Pathology—Dr. Ogle and Mr. Henry Lee.

On the payment of £100 a pupil becomes perpetual to the Practice of the Physicians and Surgeons and to all Lectures, may compete for all prizes, Exhibitions, and for the office of House-Surgeon, and may become Clinical Clerk and Dresser for two periods of three months each.

On the payment of £90—£45 paid at the commencement of the first Winter Session, and £45 the second Winter Session—a pupil is admitted to the Hospital Practice and Lectures required by the various Examining Bodies.

Gentlemen can enter to the Hospital Practice and Lectures separately.

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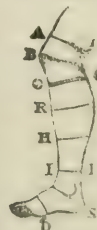
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Clinical Lectures

DELIVERED AT

CHARING CROSS HOSPITAL.

BY

HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS; LECTURER ON
PHYSIOLOGY AND PATHOLOGY AT CHARING CROSS
HOSPITAL MEDICAL SCHOOL; AND ASSISTANT-
PHYSICIAN TO THE HOSPITAL.

LECTURE VIII.—ON THE DIAGNOSIS OF DROPSIES. (Concluded.)

CASE I. *General Mechanical Dropsy from Disease of the Heart.*—CASE II. *General Mechanical Dropsy from Disease of the Lungs.*—CASE III. *Acute Dropsy from Exposure to Cold.*—CASE IV. *Dropsy after Scarlatina.*—CASE V. *Œdema of Feet from Pressure of Enlarged Liver.*—CASE VI. *Ascites with Atrophied Liver.*—CASE VII. *Ascites with Enlarged Liver.*—*The Relation of Ascites to Œdema of the Legs.*

CASE I. George Gelden, aged 44, was admitted into the hospital for shortness of breath and swelling of the legs. For twenty years he was a waiter at an hotel, and drank to excess; but he has lately been a light porter, and has drunk moderately. For the last few years he has suffered occasionally from gout; and at the end of last year, about six months ago, was taken with a severe cold on his chest. Six weeks ago his legs began to swell, and have rapidly increased in size, the swelling having gradually extended from the ankles up to the thighs. At the time of his admission, the legs were enormously large, hard, tight, and pitting deeply on sustained pressure. There has been no œdema about the face, body, or upper extremities. There is but little cough or expectoration; breath very short on the least exertion, accompanied with palpitation; while perfectly at rest the breathing is tranquil. *On listening over the apex of the heart a strong systolic bruit is heard.* No albumen in the urine.

What was the diagnosis in this case? Cardiac dropsy, due to mitral regurgitation. And on what was this diagnosis based? In the first place, the dropsy had the distribution of "general mechanical" dropsy, commencing at the lowest part of the body, and gradually creeping up; then we had the essential symptom of *dyspnœa* present; then the freedom of the upper parts of the body from puffiness, and, above all, the absence of albumen in the urine, relieved the kidneys from all onus. The only doubt, then, at this stage of the inquiry, would be, whether the seat of the mechanical impediment giving rise to the dropsy was the heart or lungs, whether it was a case of cardiac or pulmonary dropsy, whether it was due to bronchitis or heart-disease. This doubt was soon solved; for not only was the amount of mischief found in the lungs inadequate to the production of such results, but, on exploring the heart, we found enough to explain everything—a suitable and sufficient cause for all the symptoms—a grave derangement of the heart's machinery, such as would, sooner or later, give rise to all the effects of mechanical blood-stasis. The effects were such as pointed to the cause; and, on searching for the cause, we

found physical evidence of its presence. The chain of evidence was then complete.

I may mention one thing in relation to this case, though it has not to do with the question of diagnosis—the special object of this lecture. It is, that it offers a very good example of the wonderful power of hydragogue catharsis in reducing dropsy of this kind. At the present time, after having been in the hospital three weeks, the swelling of this man's legs is almost gone. Its cause—the heart-disease—is, of course, exactly the same; but we have been pumping out of him five or six watery motions every morning by means of half-drachm doses of compound scammony powder; and this discharge of water has, by reducing the volume of the blood, so disencumbered the heart's damaged machinery, and, at the same time, so stimulated absorption, that the result is what you see.

CASE II. James Shearer, aged 42, has served for twenty-one years in the Scots Fusilier Guards, and was in the Crimea; otherwise has been on home duty; had rheumatic fever twice, but, with that exception, has always enjoyed good health, and the rheumatism did not affect his heart or chest; no consumption in his family. His illness dates from April twelvemonth. He was walking down to New Cross with his wife and children, and noticed a pain in his right side along the lower ribs, rising towards the armpit. In a month the pain had risen higher in the side, and was accompanied with a tightness of the chest and a sense of oppression of the breathing. He seemed quite well as long as he was sitting still; but when he began to move, he lost his breath. He had a slight cough, mostly dry; and what little expectoration he had was chiefly in the morning. The next thing he noticed was a swelling in the left ankle, and shortly after in the right; it soon gradually extended up the legs; by November the swelling had reached the top of the thighs. No other part of the body was swollen, except that he felt a little tightness round the belly. He mostly lay on the left side (the right being the affected one). By this time the cough was very bad, in paroxysms of four or five minutes duration; the spitting more abundant; the sputum grey, containing no blood, not even rusty. In December he spat blood, ten days in succession, five or six times a day; but the phlegm was free of blood, and the blood of phlegm—the two perfectly distinct. At this time the sputum had a peculiar taste, that it had not had before; but there was no change in its appearance, nor did the patient ever notice any offensive smell with it, nor did any one else. The spitting of blood never returned but on one occasion, the morning after the illuminations for the Prince of Wales's marriage; he had been out on that occasion, and coughed violently on coming home. From December to April the swelling of the feet and legs got less; the breathing slightly better, but still very bad; the coughing and spitting night and morning, though less than there had been. He went on slightly improving (the breathing becoming clearer, but the swelling of the legs never entirely leaving him) till the end of May, when he was called out for eight days' drill. His breathing was equal to slow marching, but he could not manage the "double", which doubled him up; he also drank too freely. The result was, that the difficulty of breathing returned, and the swelling of the legs

reappeared. In this state he came into the hospital.

Physical Examination. Heart perfectly healthy; left lung perfectly healthy; right lung dull in its lower three-fourths, front and back. Over the dull region there is loss of respiratory murmur, of vocal resonance, and of vocal fremitus. Right side immovable in breathing, all the movement being performed by the left. No ægophony. Urine—no albumen; in all respects perfectly healthy.

Now here we evidently have another case of "general mechanical" dropsy, only, instead of the heart being the *point de depart* of the stasis, it is the lung. We have the characteristic distribution of the dropsy; the presence of the essential symptom—dyspnœa, the dropsy varying as the dyspnœa; the kidneys functioning perfectly; the heart healthy; but three-fourths of one lung functionally destroyed—not the seat of respiration, and therefore not the seat of free blood-transit. The diagnosis of this case, in relation to its clinical history and physical signs, is very interesting, and not very clear; but I will not now divert your attention from my main object by discussing it. I will merely remark that both this case and the preceding illustrate the fact that you may have extensive œdema of the legs from heart or lung-disease without albuminuria; in other words, that a mechanical source of general dropsy may be sufficient to produce serous transudation from the capillaries of the lower extremities, and yet not be sufficient to produce serous transudation from the capillaries of the kidney. This merely shows that the capillaries of the lower extremities are the most delicate percipients of any source of general stasis of the circulation, and the Malpighian capillaries less so. Formerly, I was not sure that this was the case; but these cases, and other similar ones that I have seen, set the point at rest.

CASE III. William Bush, aged 20, by trade a house-painter, presented himself among the out-patients of this hospital on the 20th of March last, and was at once seen to have œdema of the face, which was pallid and puffy. He said he was swollen all over, and showed his legs, which were large and pitting. He stated that his illness commenced some days previously (after having got wet through and suffered his wet clothes and shoes to dry on him) with shivering, pains in the head and loins, swelling of the face, and afterwards feet, legs, and entire body. His urine was examined, and found to be loaded with albumen. He was at once ordered into the hospital.

On admission, we found him in the state described; his face, especially his eyelids, so swollen as to be quite disfigured; the entire cutaneous surface more or less œdematous, the stethoscope leaving a depression wherever it was applied. The heart and lungs were found to be perfectly healthy, except that the breathing was slightly accelerated; and there was a little dry rhonchus here and there, with short dry cough. He stated that he had been perfectly well up to the commencement of this attack, a few days previously; and that he had *never suffered from difficulty of breathing*. On examining the urine, we found it so charged with albumen that, on boiling it, the test-tube might be momentarily turned upside-down without anything escaping—so completely was it solidified. It was scanty, and of a specific gravity of 1015, not bright; and, on putting it aside to stand, an abundant deposit subsided,

which, on examination by the microscope, was found to be organic, and to consist partly of tube-casts, granular and epithelial, of small and medium size, but chiefly of disintegrated epithelium-cells.

After this patient had been some days in the hospital, he experienced an aggravation of his symptoms from exposure to cold, in consequence of drafts in the wards. We noticed that his face was more puffed; he complained of pains in his loins, and vomited; and his urine became charged with blood, in addition to the albumen. From that time forward, however, under appropriate treatment, he has uninterruptedly improved; the blood soon disappeared; every trace of the dropsy has gone; and all his other symptoms have vanished, except that there is still a trace of albumen in his urine, and may be for some time to come.

Here we have a case manifestly of a different complexion from those which we have just been considering. We have the heart and lungs *both* perfectly sound, and no dyspnœa up to within a few days of his being seen, and even then so slight as not to be a source of any distress. It is manifest, then, that the dropsy is not of the "general mechanical" type, since that arises alone from heart or lung-disease. Moreover, the dropsy is universal, and developed with great rapidity, showing itself not first in the feet and gradually creeping up, but first of all in the face. Moreover, we have such an amount of albumen in the urine as no mechanical source of dropsy would ever produce, and a deposit showing the kidneys to be the seat of primary disease. Two symptoms commonly present in cases of this nature—namely, vomiting and pain in the loins—were absent when the lad came in; but they appeared, as has been narrated, a few days later. That nothing may be wanting, add to all this that the symptoms were preceded by such an exposure to cold and wet as would be sufficient powerfully to check the action of the skin—and the chain of evidence is complete.

It is evident, then, that we have here one of those cases of what is called "acute dropsy" from surface cold, always associated with derangement of the kidney, and which I have named "dropsy from cutaneous asphyxial congestion".

Let us now turn to another case, very similar.

CASE IV. Louis Tiller, a boy aged 14, was brought to the hospital the other day, on account of a swelling of his entire body and face, which had suddenly made its appearance a few days previously. He was led into the out-patient room by his mother, his gait feeble, his breathing oppressed, and complaining of headache and pain in his back. But the most striking thing about him was his appearance. His face was bloated, and his eyelids so swollen that his eyes were very imperfectly opened; there was a peculiar semitransparent opalescence about his eyelids, and a quaggy fluctuous tremor of them on being gently tapped. The body was so much enlarged that the waistcoat and trousers could not be brought together; the navel was deeply set; the scrotum was very much swollen; the legs had, from their swelling, lost the natural shape of a boy's limbs, and they pitted deeply on pressure; the application of anything to any part of the surface of the body left its impression, and the corrugations of the boy's linen were mapped out on many parts of the trunk. In fact, there were all the appearances of universal subcutaneous dropsy. The face and the entire surface of

the body were blanched. The urine was scanty, and said to be very dark; on having some passed, and examining it, it was at once seen to be darkly smoky from the presence of blood; and, on boiling it, a copious deposit of albumen was thrown down. Heart and lungs healthy; breathing oppressed; no cough; respiratory murmur every where natural; *no dyspnoea before the swelling appeared.*

You will see at once how like this picture is to the preceding, and how clearly the dropsy is of the same nature. The process of reasoning that would diagnose the one would diagnose the other, and I need not repeat it. The only point of difference in the two cases was the cause. In this latter case, like the other, the dropsy appeared suddenly—the boy went to bed apparently without it, and got up with it; but there was no recognised exposure to wet or cold previously. But inquiry elicited that three weeks before, he had had a rash that was suspected to be scarlatina, and his hands, etc., had peeled. There could be no doubt then that this was a case of “dropsy after scarlatina,” and the only difference in respect to the cause was, the particular *materies morbi* with whose elimination the skin and kidneys were struggling.

CASE V. Within the last few days there has come into the hospital a man exhibiting, if my diagnosis is correct, a form of dropsy which is not a very common one; his history is as follows.

John Bradley, aged 45, has been for some years past a steward on board an Indianan, and has drunk enormously of spirits. Some short time ago he noticed that he was getting larger in the belly than usual, that he could not button his waistcoat and trousers so well as he formerly could; and this has gone on increasing till now they will not meet by two or three inches; lately his legs have become rapidly cedematous, and are now largely so. On examining the heart there is found no evidence of disease, and in the lungs nothing but slight bronchial sounds apparently quite insufficient to indicate a pulmonary explanation of the dropsy. On physically examining the abdomen it is at once evident that its distension is not due to fluid, as there is not a trace of fluctuation; but we find that the liver is greatly enlarged, occupying the epigastrium, and extending four or five inches below the margins of the right ribs. No albumen in the urine, which is in all respects perfectly healthy.

Now let us trace the process of reasoning by which we arrive at the diagnosis of the nature of the dropsy in this case. In the first place the *distribution* of the dropsy is the same as in “general mechanical”—it is dropsy of the lower extremities. But we have not the sources of general mechanical dropsy; the heart and lungs are not the seat of such disease as could generate it; and we know no other source of general mechanical dropsy except disease of the heart or lungs. The kidneys have clearly nothing to do with it, for they are functioning naturally, and are evidently healthy. But how about the liver? That we find is evidently *not* healthy. Can that in any way produce the dropsy of the legs? We know that the liver has nothing to do with the circulation of the legs; but that it *has* to do with another circulation, that of the abdominal viscera, and that it is on this circulation that disease of the liver tells, and that when it produces dropsy that dropsy is abdominal dropsy, or

ascites. But there is one way in which disease of the liver *may* give rise to oedema of the lower extremities, and that is probably the way in which the dropsy of the legs has been produced in this case. When the liver undergoes great enlargement it becomes a veritable tumour, capable of producing all the effects of a tumour. Immediately behind the posterior border of the liver is the inferior cava, and in a supine position the liver may be said to rest upon it. In health things are so apportioned that no disturbance results; but when the liver is greatly increased in size and weight it presses on the cava, in the supine position, to such a degree as to impede the flow of blood through it, and thus to give rise to the results of pressure on a large venous trunk, one of which results we know to be oedema, corresponding in extent to that segment of the circulation which is tributary to the venous trunk pressed on. Now in this case we have all the conditions for such a production of such a dropsy, and in the absence of any other explanation I cannot but believe that this is the true one. If this is so, this is an example of what I have called “local mechanical” dropsy.

But there is one difficulty in the way of this diagnosis that I must not conceal from you. Any impediment to the return of blood to the heart by the inferior cava produces not only oedema of the lower extremities but enlargement of the superficial veins of the abdomen; now, in this case there is no such enlargement of the superficial abdominal veins. But, at any rate, whether our diagnosis is right or wrong, what I have told you about the case is sufficient to illustrate the principles upon which the diagnosis of local mechanical dropsy is based.

CASE VI. Joseph Slater, aged 61, an agricultural labourer, was admitted into the hospital for ascites and swelling of the feet and legs. Of temperate habits, and has always had good health. He first noticed the swelling of his belly early in February; it gradually increased, and he came to the hospital. He had had pains in the back, but none in the belly; had lost flesh and strength; the bowels had acted regularly; the urine was high-coloured, turbid, and scanty.

On examining the patient we found him emaciated and sallow, and the abdominal cavity enormously distended with fluid—the circumference of the abdomen forty-five inches; the thrill on percussion highly developed in consequence of the tension with which the thin parietes were stretched over the fluid; the superficial abdominal veins enlarged. There was one appearance which was rather peculiar; the umbilical opening was very much enlarged, about an inch in diameter, and through it projected a sort of hemisphere of peritoneum, driven forward by the fluid beneath it, and covered by the thinned integument above it, constituting a sort of serous hernia; it was about as big as half a large walnut. The characteristic thrill could be elicited in this little cavity, and when the light shone through it it had the semitransparency of a hydrocele. No outline of the liver could be made out. The legs were but little swollen, chiefly about the ankles. The motions were pale; the urine evidently containing bile; no albumen. Heart and lungs healthy.

In this case you see the features of the dropsy were very well marked, and were of an entirely different character from those of the previous cases;

and up to a certain point the diagnosis was perfectly clear. The urine asserted the kidneys to be healthy, and the stethoscope asserted the heart and lungs to be healthy. There seemed nothing, then, left but the liver. That this was the organ at fault was further shown by the sallow skin, the pale motions, and the bilious urine. Moreover, the particular form of the dropsy—ascites—was that which directly points to the liver. But there was just one point that raised a doubt as to whether the liver itself was the seat of the organic change causing the dropsy; it was quite clear that that cause was something impeding the portal circulation and hindering the escape of bile; but it might be all that, and yet not the liver. I have mentioned that the feet were swollen and the superficial veins of the abdomen enlarged; it seemed, then, that the disease, whatever it was, was something exercising pressure on the inferior cava; if this was the liver the organ ought to be enlarged, so as to constitute a tumour and an incumbent weight on that vessel. But no trace of enlargement of the liver could be found; and I may mention that afterwards, when the man was tapped and the dropsy became, therefore, less a source of obscurity, no enlargement of the liver could be detected. It seemed, therefore, to be more probable that the source of the dropsy was some disease (it might be cancer) not involving the whole liver texturally, but either foreign to the liver or growing from the liver, and so placed as to press on the portal vein, hepatic duct, and inferior cava.

The man died (I purposely avoid now all further detail of the case), and the *post mortem* examination shewed that this refinement of diagnosis was wrong, that the cause of the dropsy was a textural degeneration of the liver, not attended with an increase of its bulk, but with a great diminution of it, the liver weighing only a pound and a half. Another case which was in the hospital at the time, and which I will now relate, happily illustrated, a short time subsequently, where the fallacy of our reasoning was.

CASE VII. John Holland, aged 40, was admitted into Charing Cross Hospital June 3rd, with an enormously distended belly and oedematous legs. He had led a very wild and irregular life, and had drunk an immensity of spirits. His symptoms were of many months standing, and into them vomiting and jaundice had largely entered. He was emaciated, pallid, and sallow, the sallowness sometimes rising to jaundice. Heart and lungs healthy; urine containing no albumen. There was the same hernial protrusion of the peritoneal sac at the umbilicus as in Slater's case, only to a much greater extent—as big as a hen's egg; and the legs were much more oedematous, as much so as one often sees in an advanced stage of heart-disease. There was this difference, too—that in spite of the drummy tension of the abdomen with fluid, and the dulness which this produced, we thought we could detect great enlargement of the liver. Afterwards, when the man was tapped, and the serum (twenty-four pints) was drawn away, this became very conspicuous, and the lax parietes could be thrust beneath the margin of the liver, and fairly under the organ, thus bringing its edge into view, which was five or six inches below its natural seat.

There seemed, then, no difficulty in explaining the double dropsy in this case—the ascites was owing

to a textural disease of the liver, probably cirrhotic, impeding the transit of blood through it, while the oedema of the legs was due to the pressure of the enlarged organ back on the inferior cava. But mark what followed. When this man was tapped his legs and thighs were enormously oedematous, more so than they had been at all; *within eight and forty hours afterwards not a trace of oedema was to be seen.*

From this sudden disappearance of the oedema of the legs after the tapping, we learned two things:—

1. That the pressure of the enlarged liver on the inferior cava was *not* the cause of the oedema of the legs; for the liver was just as large after the tapping, but the oedema was gone.

2. That the pressure of the incumbent fluid on the great inferior systemic vessels *was* the cause of it, and, therefore, might be the cause of it in Slater's, or any other case. This proof that ascites is of itself sufficient to generate so great an amount of oedema of the lower extremities is a most important clinical fact, as it removes the necessity for any other explanation of dropsy of the legs in any case in which ascites is present. Had I known this when I was diagnosing Slater's case I should have been content with the hypothesis of simple liver disease, as a sufficient interpretation of it.

Gentlemen, I must here conclude my lecture. There are yet two forms of dropsy whose diagnosis I have not illustrated; for the good and sufficient reason that I have no cases wherewith to illustrate them; one, the primary dropsy of serous cavities; the other, the dropsy of watery blood. I must illustrate these on some future occasion.

HOW INOCULATION CAME ABOUT. At a time when small-pox was as destructive as the plague itself, Lady Mary Wortley Montagu, happening to be at Adrianople, was struck with the fact that the Turks were in the habit of making terms with the disease by receiving it into their system by way of the skin, instead of by the lungs, as in the natural mode of infection. Possibly, the lively nature of the lady's letters had more to do with the sensation this new practice created in England than the magnitude of the truth she made known, and to this day we believe that the public have some idea that it was a discovery made by her ladyship, and which she had the boldness to put in practice upon her own son. Yet no fact is more certain than that throughout Asia the practice of inoculation had obtained for ages; and that the Chinese—the inevitable nation to which we have always to go back for the birth of any great discovery—systematically employed inoculation as early as the sixth century. Yet, strange to say, in Asia this precious knowledge came to a dead standstill, and had it not been for the lively English lady inoculation might not have been introduced into England for another half-century, and possibly vaccination would even now be in the womb of time. That inoculation was a grand step towards the practice of vaccination there can be little doubt, although science did not at the time appreciate the fact. It taught us that the disease received into the circulation by the skin was infinitely less dangerous than the disease “caught” by inhalation through the lungs, a circumstance which medicine cannot explain to this day. The deaths from small-pox during some of the severe epidemics of the last century were not less than a third of those attacked, but the improved practice of inoculation reduced these deaths to one in two hundred. (*Once a Week.*)

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

ON THE INFLUENCE OF A LONG COURSE OF NITRIC ACID IN REDUCING THE EN- LARGEMENT OF THE LIVER AND SPLEEN, THAT SOMETIMES RESULTS FROM THE SYPHILITIC CACHEXY.

By GEORGE BUDD, M.D., F.R.S., London.

THE attention of pathologists has for some years been directed to the enlargement of the liver; or simultaneously of the liver and spleen; or of the liver, spleen, and kidneys; of which I many years ago sketched the clinical history, under the heading "Scrofulous Enlargement of the Liver"; but which, in consequence of the discovery since made, that some elements of the enlarged glands commonly exhibit the chemical reaction of starch, has recently been described as the "Amyloid Degeneration."

This disease occurs under various circumstances, but especially in persons whose health has been long impaired by constitutional syphilis or scrofula. The most striking examples of it are seen in the victims of scrofulous or syphilitic caries.

In such cases, after the disease of the bone has existed a considerable time, it is found that, without pain, or tenderness, or other symptom specially directing attention to these organs, the liver and spleen are much enlarged. By and by, the urine becomes albuminous.

Albumen continues to pass off in the urine; the patient, often without much loss of flesh, grows paler and paler; and, at length, death occurs—not from the disease of the liver or spleen, but from that of the kidneys.

After death, it is found that the kidneys are enlarged, as well as the liver and the spleen, and that the three organs have undergone the same kind of morbid change.

The object of this communication is not, however, to describe the course of the disease, or the characters of the morbid change; but to make known that the nitric acid (or the nitro-muriatic acid), long continued, has, in certain circumstances, great remedial power over it. The nitro-muriatic acid has for many years been extensively used for its influence in modifying the nutrition of the liver; and, in very many instances, under its long continued use, enlargement of the liver—presumably of the kind in question, occurring under different circumstances—has been found gradually to disappear.

I should trespass too much on the time of the meeting were I to enter on a subject so wide, and at present so indeterminate, as the general influence on nutrition which these acids have.

To bring my observations within due compass, and at the same time to make them more definite, I shall restrict myself to the disease of the liver and other abdominal glands, consequent on the syphilitic cachexy, more especially on syphilitic caries; and to the influence of nitric acid upon it.

It is difficult, on such a subject, to convey to others the results of individual experience without some appeal to facts which that experience embraces; and I shall, therefore, relate, as briefly as I can, three cases that have recently fallen under my notice, which may serve

to illustrate the sequence of events to which I have referred, and the kind and degree of influence which, when the disease is of syphilitic origin, the nitric acid exerts.

CASE I. A medical graduate of Edinburgh, of very temperate habits, during his studentship, towards the close of 1841, contracted a venereal sore, followed by enlarged inguinal glands. This malady was treated by local remedies only; and at the end of a month or five weeks his health was re-established. He remained in good health till the autumn of 1853, when he had, for some weeks, ulcerated sore throat.

In March 1854, he had an attack of pneumonia, for which he took a large quantity of calomel; and before he had recovered from the debility which this illness caused, the throat became ulcerated again; the ulceration commencing in the soft palate, and soon spreading to the uvula and tonsils.

In July, a piece of the vomer came away. Subsequently, from time to time, small pieces of the nasal bones were detached, and, at length, the bridge of the nose sank. To check this ulcerative process, iodide of potassium in very large doses, and a combination of the syrup of iodide of iron with cod-liver oil, were taken, alternately, for some months. The ulceration of the fauces was stopped by these remedies; but the patient was left weak, and a puriform discharge from the nostrils continued.

In the autumn of 1859—when the disease of the nasal and palate bones had existed between five and six years—he suffered considerably from acidity of the stomach, flatulence, and other dyspeptic symptoms, and noticed an unnatural fulness and prominence of the epigastric region.

On account of these ailments, he paid me a visit on December 24th, 1859. He was then pale and much emaciated; weighing only nine stone seven pounds, though five feet eleven inches and half in height. The skin was dry, and the tongue unnaturally red.

The fulness and prominence of the epigastric region was found to be chiefly owing to enlargement of the liver; the lower edge of which, from the thinness of the abdominal walls, could be distinctly traced, reaching in the median line as low as the umbilicus. The spleen was likewise enlarged, being plainly felt extending about the breadth of three fingers below the false ribs.

The urine was voided more frequently than natural; and, on examination, was found to be of specific gravity 1012, and to contain a considerable quantity of albumen.

The fauces exhibited the scars of former ulcers, which had removed the uvula and much of the soft palate, but no actual ulceration was visible. There was still an abundant puriform discharge from the nostrils.

The case was considered to be one in which disease of the liver, spleen, and kidneys, of the kind specified above, was consequent on protracted caries,* most probably of syphilitic origin; and twenty minims of dilute nitric acid, with a dessertspoonful of the fluid extract of sarsaparilla, twice a day, and a generous diet, were prescribed. No change of residence or occupation was adopted.

The medicines were taken continuously; and on the 28th of April, 1860—that is, after the lapse of four months—the patient had improved much in condition, and had gained a stone in weight. The liver and spleen were much reduced in size. The urine was of specific gravity 1010; clear, moderately acid, and contained only a very small amount of albumen.

The diet since the preceding December had comprised solid animal food twice a day, at breakfast and dinner; and, in addition, strong soup for lunch, and a pint of Guinness's porter daily, but no other alcoholic drinks.

* The condition of the liver is not exactly alike in all cases of this kind. In some cases it contains oil enough to add considerably to its bulk; in others, scarcely any.

The patient was directed to continue taking the acid and sarsaparilla; which, with only a fortnight's intermission, he did from this time to October 12th, when I had an opportunity of seeing him again. He was then stouter and stronger than before, and no perceptible enlargement of the liver or spleen existed. The urine was now free from albumen. The specimen examined was of specific gravity 1018, very slightly acid when just passed. There was still a puriform discharge from the nostril, but not one-tenth as much as on my first examination.

On account of the persisting discharge from the nostril, and the absence of any discoverable ill effects from their use, the medicines were continued till the beginning of April 1861. On May 1st of that year, I examined the patient again. He then considered his health re-established. His weight was eleven stone one pound. The liver and spleen could not be felt beyond their usual limits. The urine was of specific gravity 1010, barely acid when just passed, and, as at the preceding examination, contained not a trace of albumen.

The acid and sarsaparilla were thus taken more than fifteen months, with only a fortnight's intermission; and the result was a gradual and progressive improvement of health.

During this long course of nitric acid, with a highly animal diet, there had been no gravel or red sediments in the urine; and from an early period of the course to its end, there had been no indications of undue acidity of the stomach, although, before the acid was taken, acidity of the stomach and flatulence had been among the symptoms most complained of.

The effect of the plan of treatment appeared to be, a gradual amendment in the disease of the nostril; a gradual diminution of albumen in the urine; return of the liver and spleen to their natural size; and restoration of the general health.

CASE II. On June 6th, 1862, I was called to a gentleman, of powerful frame, 35 years of age, who for several years had been grievously afflicted with disease of the bones of the kind in question.

As long ago as the year 1855, several pieces of necrosed bone, from the size of a shilling downwards, belonging to the outer table of the skull, had been removed from the forehead and top of the head. The left knee, in consequence of the long existence of ulcers near it, had been contracted, so that the foot could not be placed to the ground; above the right knee was an ulcer still open, apparently connected with the femur; on the forearm another open ulcer; and the bones of the forearm, and the tibia on each side, were thickened in parts and uneven.

For some months he had been confined to his bed and chair; and, from the shortening of one leg and general muscular debility, he was unable to stand. The liver was much enlarged; the spleen could be felt projecting some inches below the ribs; the urine contained a large amount of albumen.

At this time, some diarrhoea existed, with occasional vomiting. These ailments were soon removed by attention to diet and by pills of creasote and opium; and twenty minims of dilute nitric acid were then ordered to be taken twice a day. Subsequently, the dose of the acid was increased to twenty-five minims twice a day. A generous diet, which had been previously taken, was allowed. No change was made in the mode of life.

Soon after I first saw the patient, he went to his usual country residence; and in the middle of November, I received a report from his medical attendant, stating that he had improved in condition, and that the quantity of albumen in the urine had lessened.

He continued to take the acid; and in February 1863, I saw him again. I found the liver reduced in size; the spleen scarcely to be felt; and the general condition much improved. The amount of albumen in the urine

was less than in the preceding summer; but was still considerable.

As yet no attempt had been made to walk. Soon after this, an apparatus was contrived for the gradual extension of the contracted knee; and, by the aid of crutches, he began to walk about the room. From twenty-five to forty minims of nitric acid, with eight minims of tincture of sesquichloride of iron, were taken daily from this time till July 13th, when twenty-five minims of the acid were directed to be taken regularly twice a day; and acid foot-baths were ordered in addition.

On July 13th, the liver could be felt in the epigastric space, but on the right side did not extend below the false ribs. The spleen could no longer be felt. The sores were all healed. The urine, which was clear, and of natural colour, still, however, contained albumen.

The acid has thus been taken continuously for thirteen months; and, though scarcely any bodily exercise has been possible, the result has been—reduction of the liver and spleen almost to their natural size; diminution in the amount of albumen in the urine; healing of the sores; and improvement in the general health. Notwithstanding the large quantity of acid taken, the urine, when tested, has never been more than moderately acid, and no heartburn nor undue acidity of the stomach has ever been complained of.

CASE III. An officer in the army, of robust frame, 35 years of age, had syphilis eleven years ago. This was followed by sore-throat. In less than twelve months from the time of infection, he began to have pains in the bones, worse at night. Subsequently, during the Crimean war, in which he was engaged, nodes formed on the shins and on the right radius. He continued to suffer, more or less, from pains in the bones for several years.

Six years ago, abscesses formed on the right forearm and on both legs—all, apparently, in connection with the bones; and, ultimately, in the arm, a piece of bone, as large as a shilling, exfoliated. The sore on the arm from which the piece of bone came remained open three or four years; the other sores healed more quickly.

Two years ago, after exfoliation of the piece of bone referred to, all the sores healed. From that time, his health was comparatively good for twelve months. Law proceedings in reference to some property then gave him, for several months, much anxiety. The pains in the bones recurred; his sleep became broken; his appetite impaired; and he began to suffer from thirst.

These various ailments continued, notwithstanding the cessation of the mental disquiet to which he ascribed his relapse; and when I first saw him, on Feb. 12th of the present year, he was pallid and cachectic, and so weak that he could not walk a quarter of a mile without fatigue. His weight, which in health was between thirteen and fourteen stone, was now eleven stone. He complained of pains in the bones, sleepless nights, and profuse morning perspirations. His appetite was much impaired; he suffered from thirst; and had occasional nausea.

During the eleven years that had elapsed since the commencement of illness, he had taken two or three courses of mercury and great quantities of iodide of potassium. The bones of the forearm and the tibia on each side were thickened in parts, so that their surface was rendered uneven; and the skin above them was scarred by the former sores. The liver was much enlarged, reaching in the median line nearly to the umbilicus, and on the right side below that level. The urine contained albumen which, when coagulated in a test-tube and allowed to subside, rose to one-third of the height of the urine in the tube. Twenty minims of dilute nitric acid twice a day were prescribed.

On March 6th, the acid was directed to be taken three times a day; and ten minims of liquor cinchone were added to each dose. From the first, there was a

rapid improvement in the patient's condition; the pains in the bones lessened; appetite and sleep returned; the excessive thirst abated.

On June 15th—that is, after the acid had been taken rather more than four months—the patient had gained one stone and four pounds in weight; could walk any reasonable distance without fatigue; and had, indeed, little to complain of. The liver was found to be much reduced in size. The urine was of specific gravity 1016, and only faintly acid. It still contained albumen, but in very much less quantity than at first.

He continued to take the acid; and on July 1st, when I last heard from him, he considered his health so far re-established that he was indisposed to follow the advice I gave him, to decline joining his regiment, which was on foreign service.

Here, the acid has been taken a very much shorter time than in the preceding cases; but the result has been—reduction in the size of the liver; diminution in the quantity of albumen in the urine; and remarkable improvement in the general health.

The cases just related appear to warrant the following conclusions:—

1. That, when the liver and spleen have become diseased in the manner specified, in sequel to protracted syphilitic disease of the bones, nitric acid, long taken, has a remarkable influence in gradually effecting the removal of the morbid deposit to which these organs owe their increased size, restoring the organs to a more healthy condition, and improving the general health.

2. That, under such circumstances, there is unusual *tolerance* of the acid, which may be taken continuously for many months without inducing excessive acidity of the urine, or any inconvenience attributable to undue acidity of the stomach.

The cases further afford a strong presumption that nitric acid, taken earlier, would prevent the disease of the abdominal glands, which, when established, it tends to remedy; and they, perhaps, warrant the inference, that since the virtues of iodide of potassium were discovered, nitric acid has been too much neglected in the treatment of long-standing constitutional syphilis.

Nothing so quickens our perceptive faculties to discover diseases in their nascent state as knowledge of their causation. The knowledge that the peculiar disease of the liver, spleen, and kidneys, that we have been considering, often results from the syphilitic or scrofulous cachexy, more especially when the bones have been for some time affected, may, in many instances, enable us to anticipate its occurrence, or to detect it before it is far advanced, and, consequently, to adopt preventive measures, if such there be; or, at least, to apply what remedies we have before irremediable changes of structure have occurred.

When, as in the cases related above, together with enlargement of the liver, there is albuminous urine, showing that the kidneys have become affected, the acid acts much more rapidly and certainly in reducing the size of the liver than in restoring the healthy action of the kidneys.

One reason of this is, that the healthy action of the kidney requires a more perfect restoration of healthy structure than is implied by mere diminution of bulk; and that changes of structure, which in the liver we are unable to detect, in the kidney are readily and plainly revealed by the presence of albumen in the urine.

It is probable, however, that when the acid is absorbed from the stomach, its remedial action is really much greater on the liver than on the kidney; because it is carried to the liver directly in the portal blood, while it can only reach the kidney when it has passed in succession through the capillary system of the liver and the lung, and has become distributed in the general arterial current; and it is, therefore, possible that the acid, if taken in baths, when it would be absorbed by

vessels that go directly to the lung, might have a more rapid and more powerful action on the kidney.

I need hardly remark, that it is only when the disease of the bone,* on which the enlargement of the liver, or of the liver and spleen, is consequent, can be arrested; or when this peculiar change in the liver and spleen arises from other conditions that admit of removal, that such results as were witnessed in the preceding cases can be looked for.

When the enlargement of the liver and spleen are consequent on disease of bone which is irreparable; or when, otherwise, the conditions which led to this enlargement remain in force, the malady, though even then its course may be retarded, usually makes progress; and life, if not previously destroyed by some other affection, is at length cut short by disease of the kidney.

For reasons already stated, my remarks have been for the most part restricted to the enlargement of the liver and spleen consequent on the syphilitic cachexy; but I should not have occupied the time of the meeting, were it not for the belief that the subject, when duly considered, will be found to have a much wider scope.

The enlargement of the liver and spleen, and the albuminuria, in cases like those related above, though occurring in sequel to protracted syphilitic disease, are not special syphilitic affections; but are merely the result of the impairment of the general health which protracted syphilis occasions.

The remark was many years ago made by the late Dr. Graves, that long-continued syphilitic disease induces a state of constitution closely resembling, if not identical with, that to which the term *scrofulous* is commonly applied. The remark is quite true; and it serves, in some degree, to explain the circumstance, that persons of scrofulous constitution, as a general rule, suffer much more from the effects of syphilis than persons in whom no scrofulous taint exists. Additional confirmation of the remark is furnished by the fact that long-continued scrofulous disease, more especially when the bones are affected, is often followed by disease of the liver, spleen, and kidneys, identical in its nature, as far as we can judge, with that which, in the preceding cases, was the remote effect of the syphilitic virus.

The disease of the liver, spleen, and kidneys, then, in cases like those related above, is not to be considered as a specific result of syphilis; but as a result of the induced scrofula which protracted syphilitic disease so often occasions.

The effect of a long course of nitric acid in the cases related above is, therefore, suggestive of the question, What degree of influence does this agent possess in remedying, and, better still, in preventing the glandular enlargements, the slowly healing ulcers, and the other forms of disease that result from the more common variety of scrofula?

I have been persuaded by long experience, that in tuberculous disease of the lung, nitro-muriatic acid, long taken, tends to prevent the further deposit of tubercle; and that, in scrofulous glandular enlargements, this acid and, still more, the nitric acid, has often a very beneficial effect. What is the degree of influence which the acid exerts in such cases, and what are the limitations to its use, further and more careful observation must determine.

P.S. Although the affection of the liver, spleen, and kidneys, which is the subject of this paper, is not the peculiar and specific result of syphilis, these organs, and especially the liver, are occasionally, but rarely, the seat of disease that is, strictly speaking, syphilitic.

Nearly twenty years ago, I described under the heading, "*Knotty Tumours of the Liver*," peculiar tumours

* The circumstance that the affection of the abdominal glands is especially apt to occur in sequel toaries, suggests the question, whether protracted suppuration tends to cause it?

occasionally found in that organ, consisting of an inorganised, albuminous material, looking like cheese, an opaque, tubercular matter, in distinct masses, that, in different instances, vary in size from a hazel-nut to a large orange.

When I first gave a detailed description of these tumours, and for many years afterwards, I was ignorant of their origin. Some years ago, the discovery was made, I cannot say whether by a German or a Swedish physician—and the discovery has since been fully confirmed—that these tumours are the special result of syphilis. In two cases, during the past year, I have found them in conjunction with the affection of the liver, spleen, and kidneys, which is the subject of this communication.

When these syphilitic deposits occur in the liver, they remain for some time without very serious results; but the inorganised albuminous matter of which they consist, like the matter of tubercle, may at length soften and decompose; and subsequently, through its agency, gangrenous or destructive inflammation may be set up in the contiguous tissues. This event happened in one of the two cases to which I have just alluded.

A BRIEF ACCOUNT OF THE LITERARY HISTORY, BOTANICAL CHARACTERS, AND THERAPEUTICAL PROPERTIES OF THE ORDEAL BEAN OF OLD CALABAR.

By GEORGE HARLEY, M.D., Professor of Medical Jurisprudence in University College, London, and Assistant-Physician to University College Hospital.

In a communication recently (June 9th, 1863) made by the author to the Royal Medical and Chirurgical Society of London, in which the action of the Ordeal Bean on the animal body was compared with that of Woorara and Conia, the following conclusions were drawn:—

1. The ordeal bean may cause contraction of the pupil, when taken internally, as well as when it is applied locally.
2. Atropine and the Calabar bean, as shewn by Dr. Robertson, are physiologically antagonistic.
3. The ordeal bean paralyses the motor nerves, and leaves sensibility, intelligence, and muscular irritability unimpaired.
4. It excites the salivary and lacrymal secretions.
5. It destroys life by paralysing the nerves supplying the respiratory muscles; being in fact, a respiratory poison.
6. Although it may weaken the heart's power, it neither stops the circulation, nor arrests the heart's action. It is not, in fact, a cardiac poison.
7. It is closely allied in its effects to woorara and conia, most closely perhaps to the latter; but it differs from both, in its tendency to produce muscular twitchings, and in its power of inducing contraction of the pupil. Neither woorara nor conia exert generally or locally any such effect on the iris.
8. The ordeal bean will prove a most valuable addition to the *Pharmacopæia*, by giving us not only a useful myotic, but also a powerful anodyne, capable of soothing nerve-irritation without either destroying intelligence or endangering life by arresting the heart's action.

Such being the conclusions arrived at, it is easy to perceive that in all probability this substance will form an important addition to the *Pharmacopæia*; and steps have already been taken by some of our leading pharmacists—Bell, Squire, and others—to obtain a large supply of the material. I deem it not inadvisable to lay before the Association a brief account of the literary his-

tory, botanical characters, and therapeutical action of the ordeal bean, specimens of which are now on the table.

Fifteen or twenty years ago, Messrs. Waddell, Young, Baillie, and Taylor, missionaries of the United Presbyterian Church of Scotland, on the West Coast of Africa, gave in the *Missionary Record* a description of the ordeal bean, and detailed the effects they had seen it produce on the natives of that portion of Africa, where they were stationed. These gentlemen also sent to this country several specimens of the bean.

In 1846, Dr. Daniell made allusion to it in the *New Philosophical Journal*. In 1855, Professor Christison described its effects on the rabbit, and upon himself (*Edinburgh Medical Journal*, March 1855, p. 193). In 1858, Dr. Sharpey studied its action on the frog; and in 1860, the botanical properties of the plant were carefully and minutely described by Professor Balfour (*Transactions of the Royal Society of Edinburgh*, vol. xxii, p. 305).

Here, however, its history stopped, and here most probably would it have remained for some time to come, had not Dr. Fraser, in 1862, discovered that the extract of the bean, when applied to the eye, produces contraction of the pupil; and Dr. Argyll Robertson had the courage to turn this discovery to practical account. Since the appearance of Dr. Robertson's observations (*Edinburgh Medical Journal*, March 1863), we have been further favoured, with remarks on the practical utility of the bean, by Dr. Neill (*BRITISH MEDICAL JOURNAL*, May 16th, 1863); Mr. Soelberg Wells (*Medical Times and Gazette*); Mr. Ernest Hart (*Lancet*, May 30th, 1863); Dr. John W. Ogle (*BRITISH MEDICAL JOURNAL*, June 13th and 27th, 1863); M. Giralès (*Bulletin Général de Thérapeutique*, Juillet 15, p. 34); and Dr. Fraser is at present publishing his Inaugural Dissertation in the *Edinburgh Medical Journal* (July and August). Such then being, as far as I am aware, its literary history, I shall now proceed to describe the plant.

The *eséré*, as it is called by the natives of Old Calabar, appears to be indigenous to the West Coast of Africa. It is a long twining plant, the stem of which occasionally reaches the length of fifty feet, while it rarely exceeds two inches in diameter at its thickest part. It has trifoliate primate leaves, papilionaceous flowers, and leguminous fruit. The stem yields a limpid, acrid juice. The pods average six inches in length, and contain two or three beans. The beans are kidney-shaped, have a hard rough shell, are of a reddish brown colour, and have a deep furrow with raised edges of a pale-brown hue along their convex margin. They measure an inch in length, by three-quarters of an inch in breadth. The shell of the bean is closely attached to the kernel, which is of a white colour. It is exceedingly hard, according to Christison; weighs from thirty-six to fifty grains; and is perfectly devoid of aroma or acrimony. It tastes, in fact, exactly like an ordinary haricot-bean, and could not by the taste alone, be distinguished from one, which character, as Christison justly observes, is a very dangerous peculiarity. The beans contain about 2·7 per cent. of an active alcoholic extract, from which the alkaloid has as yet failed to be separated. Plants have been grown in Edinburgh from the beans, both by Professors Syme and Balfour, but in neither case did they flower. The characters of the plant were, however, otherwise exactly the same as those already described, and Professor Balfour names it *Physostigma Venenosum*; nat. ord. *Leguminosæ*; sub. ord. *Papilionaceæ*; tribe, *Euphascoleæ*.

The ordeal bean of Old Calabar is given to persons suspected of witchcraft, in order to discover if they are guilty or innocent. Those who recover are supposed to be innocent, while those who succumb to the poisonous effects of the nut are branded as guilty. According to the missionaries' accounts, the accused are taken to the Fetish House (Town Hall), and are there made to "chop nut," as it is called, before the whole people.

They have either to eat from twenty to thirty seeds, or to drink an infusion from them. In the latter case death quickly supervenes, sometimes in thirty minutes, and generally within an hour. The symptoms observed are, gradual paralysis of all the voluntary muscles. The person has a stupid look, and a drunken gait. His limbs cease to obey him, his breathing becomes laborious, and he sinks and dies without any apparent suffering. Should he chance to be seized with vomiting and purging, his safety is in general secured.

The only Europeans who are known to have partaken of a poisonous dose of ordeal bean are: 1. Dr. Christison, who took, as an experiment, about six grains of the nut, then, on the following morning, about twelve grains. The first dose had apparently little effect, the second was followed by alarming symptoms. The pulse became frequent; the heart's action feeble and irregular. There were giddiness and faintness, without uneasiness; and loss of voluntary motion, without loss of consciousness.

2. Two servant girls, in Glasgow, who through curiosity, ate about five grains of the kernel. They were observed by Dr. Maclaren (Dr. Fraser, in the *Edinburgh Medical Journal*, August 1863, p. 131), who described the symptoms of one of them as follows. A few minutes after eating a piece of the kernel of the size of a pea, she became sickish; and, on going out into the street on an errand, she felt stupid and giddy, with a sensation of great feebleness over the whole body, rendering progression difficult. She did not vomit till after taking a quantity of hot water. She then went to bed, slept tolerably well, but for two days afterwards was feeble and out of sorts.

As far as I am aware, the only person who has studied the therapeutical action, upon man, of the Calabar bean administered internally, is Dr. Fraser (*Edinburgh Medical Journal*, August, p. 124). That gentleman has tried the substance in cases of erysipelas of the head, delirium tremens, febricula, acute bronchitis, rheumatic fever, and irritable stomach. He uses the remedy in the form of tincture; * five minims of which, possessing the activity of three grains of the kernel, he considers the proper dose to begin with. This dose, however, may be trebled, he says, without pushing the physiological action to any extreme; for, though the five minims usually exert some influence on the circulation, the dose has in general to be considerably increased before either a permanent or a decided effect can be produced. A weak pulse he considers a contraindication; a hard and rapid one an indication for its employment.

The Calabar bean was observed in general to exert a cathartic action on the bowels; and, as this action was unaccompanied with tenesmus, he believes it may be usefully turned to account. Dr. Fraser also used the tincture as an anodyne in various neuralgic affections with marked relief, and without the disagreeable after-effects of opium. It may be applied topically as an anodyne as well as given internally.

But its most remarkable, and at the same time its most important, topical action is on the eye. As I have many times repeated Dr. Fraser's experiment, I may perhaps as well quote a few passages from my own observations.

The local application to the eye, either of an aqueous solution of the alcoholic extract, of the solid extract itself, or of a glycerine solution, induces marked contraction of the pupil in from fifteen to twenty-five minutes; and, in illustration of this, I may cite the following experiment, which was performed on a cat. The cat is by far the best animal to employ in experiments of this kind, in consequence of its possessing a highly developed

and bright coloured iris. A drop of the glycerine solution of the Calabar bean, prepared by Messrs. Bell and Co., was applied to the surface of the conjunctiva; in fifteen minutes the pupil was contracted to the size of a mustard-seed, and in forty minutes the iris appeared to extend over the whole eye. There was no local inflammation or irritation visible. I have several times repeated this experiment with the different preparations of the bean, and have invariably obtained the same result. The contraction of the pupil takes place, on an average, in from fifteen to twenty-five minutes, according to the strength of the agent employed.

The next point is, how long do the effects of the bean on the pupil last?

As an interesting illustration of this point, I may briefly relate the following experiment. Into the right eye of a cat was put a piece of the alcoholic extract of the Calabar bean, of the size of a pin's head; into the left, two drops of a strong chloroform solution of atropine (twelve grains to the ounce). In five minutes the right pupil was already somewhat contracted; but the left seemed as yet unaffected. In twenty minutes the right pupil was much contracted, the left only partially dilated. In forty minutes the right pupil was reduced to a point, the left nearly fully dilated. In one hour and a half the right pupil was scarcely visible, except on the eye being turned from the light, when it expanded a little; the left iris had now nearly entirely disappeared. In six hours, the pupils were in the same state. In twenty-four hours, they were still found in the same condition. In seventy-one hours the right pupil was one-third dilated, and very sensitive to light; the left was just commencing to contract, and not distinctly sensitive to light. In ninety-six hours the right pupil had regained its normal condition; the left was still somewhat dilated. The result of this experiment proved three things; first, that the action of Calabar bean manifests itself more quickly than that of atropine; secondly, that it is more transient in its effects; and thirdly, that the effect may not entirely pass off in less than four days. (Dr. Fraser has observed it to continue for five days).

The next point to ascertain is, if the myotic action of the ordeal nut is under control, and if, as stated by Dr. Robertson, it and atropine are physiologically antagonistic—that is to say, have the power of mutually neutralising the effects of each other.

For this purpose, some of the alcoholic extract prepared by Dr. Christison, and kindly given to me by Dr. Sharpey, was applied to the left eye of a dog, while a couple of drops of the strong solution of atropine in chloroform were put into the right eye of the same animal. In half an hour the left pupil had contracted to a point, and the right become so dilated that the iris appeared as a mere rim. In order that the effects of both substances might fully manifest themselves before proceeding with the experiment, the animal was placed aside until the following day; when, on examination, it was found that the left pupil still remained a mere point, and the right iris an exceedingly narrow ring. Such being the case, one drop of the atropine solution was now put into the eye with the contracted pupil, and a piece of the Calabar bean, of the size of a mustard-seed, into the eye with the dilated pupil. In fifteen minutes the pupils were of equal size, the left having expanded, the right contracted. In one hour the left pupil was fully dilated, leaving but a narrow ring of iris visible; the right was contracted to the size of a pin's head. The result of this experiment clearly shows that atropine and Calabar bean have, as has been asserted, the power of mutually neutralising the local effects of each other.

The effect of the ordeal bean on the accommodation of the eye, which was first noticed by Dr. Robertson, has been carefully described by him and nearly all subsequent writers; and at the present moment, it may be said to be universally admitted that the ordeal bean

* Through the kindness of Mr. Hills, of the firm of Bell and Co., I have obtained an elegant preparation of the bean in powder; the dose of which, I believe to be from three to six grains; and I hope shortly to be able to lay before the profession a short summary of its therapeutical effects in nervous affections.

has not only the power of restoring vision which has been artificially impaired by the application of atropine, but even that impaired by disease. When applied to the eye of a long-sighted individual, it restores normal vision; and when applied to a normal eye, it induces short-sightedness. The power of the Calabar bean over the accommodation of the eye has been so well illustrated in the cases related by Robertson, Bowman, Wells, Hart, and Hulke, that I need not take up the time of the meeting by dilating on this subject. I may merely mention, that the effect produced on the accommodation-power of the eye is not simply due to the power the Calabar bean exerts over the size of the pupil, but is believed to be chiefly due to its inducing contraction of the ciliary muscle, and thereby altering the focal distance of the eye.

The most convenient manner in which the Calabar bean can be applied to the eye, is by means of paper saturated with a solution of the bean, after the manner of Street-feld's atropine paper. Messrs. Bell and Squire have kindly furnished me with some of these papers; they are divided into very small squares, one of which has merely to be placed under the lower lid, and left there for about ten or twenty minutes, when its effects will become evident. Bell's paper is the strongest; for it neutralises the effect of atropine paper, while the other does not.

I shall now pass to the consideration of the effect of the Calabar bean on the general system, which is of even greater importance than the mere local effects just alluded to.

Dr. Christison concluded from his experiments on animals, and from the symptoms the bean produced upon himself, that the poison affects "directly and violently the functions of the heart, and the exercise of volition over the muscles". The results of my experiments, although in the main establishing the correctness of this view, have nevertheless led me to suggest a slight modification of it as regards the action of the poison on the heart. But, before giving my reasons for so doing, I may first remark, that the ordeal nut is a poison of terrific strength; indeed, I am acquainted with but very few that act either more quickly or more energetically. I have seen, for example, a young rabbit killed in less than two minutes by a small portion (a grain and a half) of the alcoholic extract placed under the skin of the back; and, on removing the unabsorbed portion of the poison from the wound with the point of a knife, and inserting it, on the following day, under the skin of a full grown, strong, and healthy cat, in two minutes convulsions were induced; in five minutes, the limbs were paralysed; in nine minutes, the breathing became stertorous; and in thirteen minutes, the animal was dead.

Curiously enough, cold-blooded animals, such as the frog, are but little sensitive to the effects of this poison; and this is the more remarkable, seeing how powerfully it affects the nervous system. On one occasion, I put under the skin of a frog the same quantity as killed the young rabbit in two and the cat in thirteen minutes; and it produced no effect whatever. On another occasion, I dropped under the skin of a frog's back one drop of Bell's glycerine solution, one minim of which is equal to four grains of the bean; and it had not the slightest effect. In two hours afterwards, I poured three drops of the same solution into the animal's mouth; and, at the end of an hour and a half, the animal appeared perfectly unaffected. This result surprised me very much; for three drops of the same solution, put under the skin of the shoulders of a rabbit, induced weakness of its limbs in two minutes, convulsive twitchings in five, stoppage of the respiration in seven and a half, and death in eight minutes. In both the rabbits just alluded to, there was marked contraction of the pupils. Hence it appears that the poison exerts its

myotic power on the pupil through the general system, as well as locally. Its action would also seem to be quicker when given hypodermically in poisonous doses, than when applied to the conjunctiva; for the rabbit's pupils became contracted in two minutes. In Dr. Fraser's paper, he states that, in his experiments, the contraction of the rabbit's pupil only occurred in twenty minutes. This must, however, have arisen from his using a very much weaker extract than I employed. That used by me I obtained from Professor Sharpey. It was prepared some years ago by Professor Christison; and, although it has been constantly exposed to the air, is still in first-rate condition.

The effects of the poison on the system, when not given in poisonous doses, appear to be transient; for on one occasion I put under the skin of a frog's back a piece of the alcoholic extract of the size of half a small barley-corn. In half an hour, the animal's head dropped upon the table; and, although he looked sleepy and lethargic, when roused, he leaped about energetically. As soon as he was left undisturbed, however, he dropped to sleep again. In three-quarters of an hour, the breathing was very slow, and the animal looked as if paralysed. Such, however, was not the case; for, on being pinched, he woke up and sprang about vigorously. In an hour and a half the effects of the drug began to pass off, and in two hours the animal was perfectly lively; indeed, he even looked more lively than before receiving the poison. In the transient nature of its effects, the Calabar bean closely resembles both woorara and conia.

The most interesting part of the action of the poison yet remains to be described; namely, its effects in paralysing the functions of the motor nerves, and leaving the functions of the central organ intact. It appears, indeed, to act entirely on the motor nerve-system; for even the muscular irritability is unaffected. I have repeatedly said that the limbs of the animals were paralysed, and so they were; but this did not arise from the poison affecting the muscles. On the contrary, the muscles responded immediately to the direct application of either galvanic or mechanical stimuli. It was therefore upon the nerves, and the nerves only, that the poison had acted. For example, when the sciatic nerve of one of the rabbits poisoned by the ordeal bean was exposed after death, and galvanism applied to it, no contraction in the muscles followed the application of the stimulus; whereas, on the other hand, no sooner was galvanism directly applied to the muscles themselves, than violent contractions were immediately induced. This shewed, that it was not the muscles that had lost their irritability; but that the nerves had lost their power of calling the muscular irritability into play.

Again, as in the case of woorara or conia, the involuntary muscles of the heart, in animals poisoned by the ordeal nut, go on beating long after life is extinct. Dr. Christison's idea, therefore, of this poison acting directly and violently on the heart, is not strictly correct; for although the poison may for a time reduce the cardiac pulsations, it certainly does not arrest the heart's function.

In the case of the cat, already spoken of, the contractions of the heart were reinduced by galvanism forty minutes after the animal was dead; which would not have been the case if the bean had acted as a cardiac poison. In the case of one of the rabbits, the auricles pulsed regularly at the rate of seventy per minute twenty-five minutes after death; and it was still possible, an hour and ten minutes after death, to reinduce the pulsations of both ventricles and auricles by mere mechanical stimuli. Dr. Fraser found that the direct local application of the poison to the voluntary and involuntary muscles—the heart included—caused them to lose their contractile power.

Regarding this local effect of the poison, I have had

no experience; but I may mention, that the experiments performed by Dr. Sharpey on the frog, and which he kindly allowed me to embody in my paper read before the Royal Medical and Chirurgical Society, shew, even more clearly than the above, that the action of the Calabar bean on the heart, when administered by the mouth or by a wound, is not that of a cardiac poison. In one of the experiments related, circulation was observed in the web of the frog's foot about sixty hours after apparent death. Dr. Sharpey also found that, although the ordeal bean leaves the blood heart unaffected, it possesses the power of arresting the pulsations in the lymph-hearts of the frog. He further found that, when, before poisoning a frog with the bean, a ligature is applied to one of the hind legs of the animal, in such a way as to include everything except the sciatic nerve, reflex muscular contraction can be induced in the limb in which the circulation has been stopped (consequently, the non-poisoned limb), either by the direct application of mechanical or galvanic stimuli to the limb itself, or to some other part of the body, thereby proving that it is not the sensory but the motor nerves alone that are paralysed. The poison in this respect, as Dr. Sharpey remarked, closely resembles woorara. I may add, that the ordeal bean still further resembles woorara and conia, in leaving the intelligence of the animal unimpaired. In all the animals I experimented upon, consciousness seemed quite unaffected up to the time of death. So that, as Dr. Christison says, it is not the power of volition that is destroyed, but the power of making volition effective.

From these facts, I think it will be conceded that I am justified in stating that the ordeal bean will prove a most valuable addition to the *Pharmacopœia*; and that, besides its opthalmic uses, the chief benefits will be derived from it in spasmodic affections of the nervous system—such as chorea and tetanus, or other diseases where we desire to subdue muscular spasm without affecting the intelligence. In neuralgic affections, I have no doubt, it will prove equally valuable, on account of its anodyne virtues; but, as to its action in febrile and inflammatory affections, I cannot, with my present knowledge, see how it can be nearly so advantageous as other well known remedies. However, I may see cause as my knowledge increases to alter these views; and I shall only be too glad to learn from my fellow members of the Association how and when the remedy may be most usefully employed.

A BOAT is to be established at the Naval Lunatic Asylum at Yarmouth, for the benefit of the lunatics.

SEWAGE AND ITS VALUE. Can sewage be turned to any profitable account? is a question continually forced on the attention of the Board. The ratepayers, who are confidently assured that it is worth from one to two millions sterling a year, naturally remonstrate, and the Board of Works, with a cruel sarcasm, answer the remonstrances by forwarding to the vestries an account of the proposals they have received for taking the sewage. These are nine in number, and of very different natures. One is of a kind that would render most of the work already done unnecessary, and compel the expenditure of another million and a-half in additional works. This gentleman estimates the profits to be derived from the adoption of his plan, at a million, on which he merely asks for a percentage, and proposes to give the Board half the balance. A company offers five pounds a year for this million's worth of sewage. Others offer a peppercorn rent for fourteen years, after which they propose to divide the profits with the Board, if they can make any. Another proposes to guarantee the Board ten thousand a year; and in this way vanish the ratepayers' hopes of realising that million a year which was to render almost all local taxation unnecessary.

Original Communications.

REMARKS ON THE TREATMENT OF DELIRIUM TREMENS BY DIGITALIS.

By J. W. M. MILLER, M.D., M.R.C.P., Physician to the Royal Portsmouth Hospital.

I was summoned on July 14th, 1863, to E. G., aged 35, a military officer, who exhibited many symptoms of alcoholism. The next day, he was slightly incoherent and tremulous; and I then elicited from his wife that he had partaken very freely of brandy, as a medicine, when on the coast of Africa. As his bowels had been relaxed for some hours, I ordered him a creasote mixture, combined with opium, and directed that his diet should consist of beef-tea, arrowroot, and weak brandy and water. On the 17th, every feature of the disease was fully developed; his pulse was very rapid, 140 per minute; and the delirium and restlessness extreme. At 3 P.M., I gave him half an ounce of tincture of digitalis; and this was followed by a drachm-dose every hour, until an ounce had been taken; but not the slightest amelioration of the symptoms ensued—not even an improvement in the character of the pulse. The next morning at three, I commenced the opium treatment, by administering forty drops of the sedative solution; and I remained at his bed-side two hours, repeating the dose at the completion of each hour. My patient soon became calmer. I then left him, recommending patience for a short interval. In the course of an hour or two, he fell into a comfortable slumber, which continued for eighteen hours, with only two short intervals. His recovery from this time was complete and rapid.

REMARKS. What is the value of digitalis in delirium tremens? This is a question still *sub judice*. It is now three years since the late Mr. Jones of Jersey brought his experience and views before the profession. In his hands the remedy appeared almost a specific; for out of seventy cases of the disease, sixty-six recovered without any other remedy. At first, this novel treatment received much favour, and digitalis was vaunted by many as a true antidote for alcoholism; however, its reputation has not been maintained. It has received an extensive trial from many practitioners in all parts of the country; and it is my opinion (judging from the cases which I have collected from many sources, as well as those which have happened in my own practice) that, although digitalis is an useful remedy as a calmate, and possesses some advantages over opium, still it has no peculiar power over the disease itself. It does not cut short the attack by inducing sleep at once. Its action is directly upon the nervous system as a calmate and soporific; at the same time, it stimulates the heart and augments its contractility. When it is given in large doses, there appears to be but little risk of increasing cerebral congestion and producing profound coma; and, therefore, it is especially indicated in those cases in which inflammation of the brain is threatened, and where the administration of opium would be attended with danger.

I have recorded the case above just as an illustration of my views. The digitalis here seemed useless; but, in all probability, if the order of the remedies had been reversed, it would have appeared successful, as the disease was running its definite course, and sleep is its natural termination. If we endeavour to determine upon the right treatment of delirium tremens by examining all the recorded cases, and seeking for that medicine which was administered immediately before sleep, and appeared to afford relief, we shall indeed be confounded by a mass of conflicting testimony. The question to be decided is this: What are the best remedies for quieting

the excited brain and calming the disturbed system, so that the patient may fall into a refreshing slumber, in which state alone the nutrition of the organ can be restored? Nature may be thus assisted by the judicious use of calmatives to allay irritation and diminish restlessness; and it is in this way that opium and digitalis may be usefully employed. I believe there is great danger in the old and empirical practice of pushing remedies until artificial sleep or a state of narcotism is induced; and that this ought to be the simple principle of our treatment—to remove, as far as possible, any palpable derangement of the system, and promote tranquillity of mind and body, so that the patient may sleep to recover.

"RED VULCANITE" IN DENTISTRY.

By EDWARD WELLS, M.D., F.R.C.P., Reading.

[Read before the Reading Pathological Society.]

REV. MR. C. being, as he considered, in perfect health, went about six weeks back to a dentist in London, who fitted him with a frame containing upper and lower teeth. Immediately upon wearing them, he found a metallic taste in his mouth, which was very disagreeable. By degrees, his health began to fail; he became weak and nervous, lost his appetite, and began to emaciate; had flatulency, fœtid breath, and looseness of bowels.

After wearing the teeth for six weeks, he became convinced that they were the cause of his ailments; that he was, in fact, being slowly poisoned.

This led him to send for me. I found him suffering from nervous prostration. Pulse 100, weak; tongue coated with a white film; the urine was whey-like, having an extremely fœtid odour, faintly acid; specific gravity 1009, slightly albuminous on boiling.

On examining the teeth, which are exhibited, the basis is found to be what is termed "red vulcanite", a composition, as I learn, of vermilion, sulphur, and India-rubber, vulcanised. This composition, therefore, contains the red sulphuret of mercury, probably to some amount, as the colour is entirely due to that salt.

Now, as the "red vulcanite" is largely used in dentistry, it is possible that it may not so rapidly affect many persons as it did my patient; for Mr. C. is peculiarly sensitive to the action of mercury. When ill, he is never able to take the least mercurial medicine without experiencing its toxic effects. This is probably due to his being predisposed to an affection of the kidneys. He was therefore peculiarly susceptible of the poisonous effects of the vermilion contained in the basis; and, from the condition of the urine, I think there is no doubt he was suffering from the injurious impression made by the mercury on the urinary organs. It is not improbable that there may have already existed some disease of the kidney in a latent form, which has been called into action by the absorption of the mineral. Such an explanation of his symptoms, however, would not render the use of such a basis—in his case, at least, as well as in many others—a whit the less objectionable.

In the short time that has elapsed since leaving off the teeth, he has become gradually better and stronger. The urine is much less fœtid; the appetite has improved; and the tongue is cleaner. The improvement has been sufficient to leave him still fully convinced that the teeth were the cause of his illness.

I have ventured to bring this case before you, as in consequence of its great adaptability to the mouth, the "red vulcanite" is largely used, and it is possible you may be called to cases in which it is acting injuriously on the system, but in which the patient has failed to discover the cause, and in which it may fall upon the medical attendant to diagnose the *causa mali*.

P.S. The urine has since risen to specific gravity 1020.

Transactions of Branches.

SOUTH MIDLAND AND CAMBRIDGE AND HUNTINGDON BRANCHES.

ON GAOL-DIETS, AND ON THAT OF THE HUNTINGDON GAOL IN PARTICULAR.

By M. FOSTER, Esq., Huntingdon.

[Read at Peterborough, July 9th, 1863.]

INCIDENTALLY to the great question of How to Treat our Criminals, much has been said and written about the way in which they are fed. The popular opinion seems to be that the inmates of our gaols live in the enjoyment of a better diet than that of our paupers and our agricultural poor. Having been a gaol-surgeon for now nearly thirty years, I feel justified in bringing the subject before my medical brethren; and wish first to examine briefly and critically our present gaol-diets, and then to relate a little of my experience of the past.

But, first of all, a few words must be said on what a gaol-diet ought to be. The law assumes, and therefore we need not argue the point, that the prisoners ought not to suffer in health through their imprisonment. They must, then, have enough proper food to keep them in health. They do, or rather they ought to, go through a great deal of hard labour. They ought, therefore, to have a quantity of ingesta sufficient to cover the ensuing bodily waste. The influence of the prison is depressing, and most probably lowers the assimilative powers of the body. Their diet, therefore, should be rather in excess of what would be required under other circumstances. The food should be presented in a digestible form; but everything that merely pleases the palate should be avoided. Monotony, on the other hand, inasmuch as it impairs digestion and assimilation, should be shunned. Lastly, the material should be as cheap as possible, consistently with other requirements. In fine, if we consider the prisoners as so many persons to be trained in the easiest and most economical manner for the purpose of undergoing prison-labour, we shall put ourselves in the best position for estimating the value of the various diets suggested for their use.

I purpose in the present paper to consider only the case of prisoners of long sentences; *i.e.*, of above three months imprisonment with hard labour; for it is in connection chiefly with these that any interest is attached to the question of diet; and though making references to other gaols, I shall speak mostly of the Huntingdon County Gaol, with which I am particularly connected.

Let us compare the diet, then, of such prisoners as these with the daily food of other classes.

It is impossible, with our present knowledge, to lay down an incontrovertible standard diet. The best, perhaps, of such standard diets as have been proposed, is that of Moleschott, who says that the standard man should consume within twenty-four hours, of nitrogenous material, 4½ ounces; of starch and sugar, 14½ ounces; of fat, 3½ ounces. This will provide about 300 grains of nitrogen, corresponding to about 600 grains of urea, and about nine ounces of carbon—thus supplying the standard daily waste and allowing a surplus for loss, etc. The dietaries of soldiers and sailors correspond very closely with this.

Our well-to-do classes consume, perhaps, more than this, especially of the nitrogenous elements. I found that a young man, aged 27, weighing between eleven and twelve stone, of active employment, consumed, of nitrogenous matter, 5 ounces; starch and sugar, 13 ounces; fat, 4 ounces.

An average of the daily food of ten labourers gave me, nitrogenous matter, 4 ounces; starch and sugar, 16 ounces; fat, 3 ounces.

The Huntingdon Union Workhouse diet for able-bodied paupers was, nitrogenous matter, 3 ounces; starch and sugar, 11 ounces; fat, 1 ounce.

So much for non-criminal classes.

The diet in Huntingdon County Gaol, for prisoners of long sentences, is, nitrogenous matter, 4 ounces; starch and sugar, 21 ounces; fat, $\frac{1}{2}$ an ounce.

The diet recommended by Government gives, nitrogenous matter, $3\frac{1}{2}$ ounces; starch and sugar, 16 ounces; fat, $\frac{1}{2}$ an ounce.

A few others prisons that I have taken by hazard give as follows:—

	Nitrogenous matter. Ounces.	Starch, etc. Ounces.	Fat. Ounces.
Knutsford . . .	3	16	$\frac{1}{2}$
Durham . . .	4	17	$\frac{1}{2}$
Lewes . . .	$1\frac{1}{2}$	17	$\frac{1}{2}$
Haverfordwest.	5	23	$1\frac{1}{2}$

Let us first compare the diet of the Huntingdon County Gaol with that of the non-criminal classes. We shall then see that the sum total of the quantities of the three great groups of alimentary principles exceeds that of every other class; it is $25\frac{1}{2}$ ounces, as compared with $22\frac{1}{2}$ for the standard, 22 for the well-to-do, 23 for the labourers, and 15 for the workhouse.

This difference, however, is entirely owing to the large amount of starch, etc., in the Huntingdon County Gaol diet; for it surpasses the workhouse only in its nitrogenous element, and is below them all in the amount of fat. The prisoner in this gaol consumes $6\frac{1}{2}$ ounces more starch than the standard man should do. Is that a benefit? Certainly not; for scarcely anything can be more sure in physiological dietetics than that a proper relative proportion between the various groups of alimentary principles is necessary for the full digestion and assimilation of that which is taken into the mouth. Without fat, the starch and nitrogenous material lose half their value, and so *vice versa* with each in turn. The Huntingdon County Gaol-diet, then, has a far less value in the body than it has on paper. The deficiency in nitrogenous matter does not amount to much; the prisoner consumes about as much nitrogen as the labourer, $\frac{1}{2}$ an ounce less than the standard, 1 ounce less than my specimen of the well-to-do classes, and 1 ounce more than an inmate of the workhouse.

With regard to the fat, there is always very great difficulty in estimating its quantity without making an actual analysis, on account of ever occurring variations. The meat at our gaol is generally lean; and I have calculated upon that hypothesis. But even if the meat there were generally fat, it would not disturb the result, that the prisoners get a deficient allowance of fat. They only get about $\frac{1}{2}$ an ounce daily, compared with 3 for standard and labourer, 4 for the well-to-do, and 1 for the workhouse.

In estimating, then, the value of their diet, we must deduct some of the nitrogenous material and some of the starch and sugar as rendered unavailable for assimilation and use by the lack of fat. If we thus treat $\frac{3}{4}$ an ounce of nitrogenous material and five ounces of starch (and this estimate is certainly rather under than above what is reasonable), this will give us as remaining for the actual working food of the prisoners: nitrogenous matter, $3\frac{1}{2}$ ounces; starch, 15 ounces; fat, $\frac{1}{2}$ an ounce—a diet which is not only below the standard, but below that of our labouring poor. It is still above that of the workhouse paupers; but then it must be remembered, that the latter are not put to hard labour, while the former ought to be consuming in work a large amount of tissue every day; so that, compared with the require-

ments of the recipients, the workhouse diet is quite as good, if not better, than that of the gaol.

Both in the workhouse diet too, and especially in that of our labouring classes, there is a change and variety that is not met with in that of the gaol. This must also help to place the former on a higher level than the latter.

The fact is, that two-thirds of the total nutriment consumed by the prisoners at Huntingdon County Gaol is derived from bread alone. His diet is essentially still a bread diet, formed upon the old bread and water punishment system by successive additions of other articles of food. There is given to him two pounds of bread every day. Bread is the first thing refused when the appetite fails. A labouring man, on the other hand, rarely eats, I believe, above a pound or a pound and a half daily. The labourer, too, consumes more meat, as a rule, than the prisoner, and is generally led by circumstances to choose that meat which after all is the best for him, because it contains so much fat, viz. pork; though he has the advantage of occasionally varying it with beef and mutton. He can also modify his bread element by exchanging it in part for various nutritive and salutary vegetables.

If, now, we compare the diet of the Huntingdon County Gaol with that of other gaols, we find that while, on account of the large supply of bread, it exceeds the majority in the starch elements, it is in turn surpassed by some on that point. In Haverfordwest, for example, where the whole diet is a vegetarian one, the ration of two pounds and a half of bread runs the analysis up to nitrogenous matter five ounces, and starch, etc., twenty-three ounces daily.

It would be useless to discuss the diets of all the various gaols. The Government scheme may be taken as a fair average, which, differing from that of the Huntingdon County Gaol chiefly in having the excess of bread cut off, gives, as I have said, nitrogen $3\frac{1}{2}$, starch 16, fat $\frac{1}{2}$. This is inferior, or at least not superior, to the ordinary labourer's diet, and, excepting what applies to the great surplus of starch, might be criticised in the same manner as the Huntingdon County Gaol.

On the whole, then, we may conclude that the diet of our prisoners is not superior either to that of our labouring classes, or, considering the differences of circumstance, to that of our pauper poor; and, while it fairly approaches the standard diet, is certainly not more than the prisoners require, but might, by internal changes, so to speak, brought about without altering the sum total of nutriment, be made really more efficacious and healthy, and perhaps, let me add, cheaper.

That no *absolute* reduction is advisable, is very clearly shewn by my experience as surgeon to the Huntingdon County Gaol. With a proper supply of food, extra diet is required only for cases of illness brought on by causes not special to the gaol, nor arising from the diet. These are necessarily few. With an insufficient quantity of food, men are constantly being put on extra diet for diseases caused by, or whose severity is increased by malnutrition, or in order to prevent them having such diseases. The consequence is a transference of power from the governor to the surgeon, a hindrance to the discipline of the gaol, and an augmentation of tradesmen's bills. The governor's ambition is to have as small an extra diet list as possible. That may always be taken as a fair token of the good condition of the gaol otherwise. The prisoners themselves like a large extra diet list, and I believe are rather inclined in favour of a scanty dietary and idleness, with a good prospect of extra diet from the hands of a merciful and indulgent surgeon in case of sickness, as compared with a full stomach, good health, and abundant treadmill.

In 1835, the diet at Huntingdon County Gaol for long-sentence men consisted of two pounds of bread, with one quart of oatmeal porridge, or one quart of soup

daily; giving nitrogenous matter, $3\frac{1}{2}$ ounces; starch, etc., $16\frac{1}{2}$ ounces; fat, less than $\frac{1}{2}$ ounce.

In June 1844, the diet was altered nearly to its present form, giving nitrogenous matter, 4 ounces; starch, 21 ounces; fat, $\frac{1}{2}$ ounce.

In 1849, there were further slight alterations, not affecting the total nutriment, but producing a more favourable distribution of the various principles.

From 1835 to 1844, I was always embarrassed with scurvy. In one year I had as many as eleven cases of decided scurvy, and four cases of incipient scurvy, cured by prompt antiscorbutic treatment. I believe I should have had very many more, had not my experience led me to put on extra diet all prisoners who had passed six months incarceration with hard labour, *in order to prevent their having scurvy*. In the summer of 1844 scurvy left the gaol; and, during nearly twenty years, I have only had two slight cases.

In the year ending September 1844, out of 329 admitted, 223 were placed on the sick list, and 68 were placed on extra diet, giving percentages of 67.7 and 20.6. In the year ending September 1845, they had fallen to 33.6 and 4.6 per cent. respectively. I have failed to get the returns of the sick for the years preceding 1844; but there was nothing exceptional in the year. For the extra diet bills for 1842, 43, and 44 were £28: 8: 1; £36: 17: 7; and £27: 3: 11; giving per head of those admitted, 2s. 6d., 2s. 4d., and 1s. 8d., respectively. In 1845, the expense fell to 9d per head. By the change in the dietary, then, the health of the prisoners was bettered rather more than two-fold. And the change was permanent. Amid the subsequent yearly variations, the level of 1844 and the preceding years was never reached. Between 1835 and 1844, at least two letters were written by the visiting justices to the surgeon, stating that the large amount of extra diet given by him was subversive of the discipline of the gaol. I am not aware that any such letters have been written since. I am conscious that these figures only roughly and indirectly represent the influence of diet. To obtain thoroughly accurate results, I ought to have compared year by year the total amount of time spent in gaol by prisoners of long sentences. But the labour required for such a task would be very great. Meanwhile the facts I have stated can, I think, leave no doubt on the mind, that the inferior diet of 1835 defeated the purposes of punishment by its being insufficient to keep the prisoners in health. I have a very vivid impression of the radical change effected by the introduction of the diet of 1844. And yet the addition of alimentary principles was only one ounce of nitrogenous matter, and $\frac{1}{2}$ ounces of starch, etc. The great thing seems to have been the breaking down of the monotony of bread, oatmeal porridge, and soup, by the introduction of meat and potatoes.

So much for my experience, which satisfies my own mind that any return to the low dietary of 1835 would be in every sense an evil. It is, of course, with the prisoners of long sentences only that I have dealt with in the present paper. For with short sentence men, lack of food is used as a punishment. Now, of 1,006 prisoners admitted into the Huntingdon County Gaol during the last five years, ending September 1862, only 102—that is about 10 per cent—were those whose period of confinement exceeded three months. About 50 per cent. were fed on bread and water, or bread and oatmeal gruel. How unreasonable is the present state of public opinion, which thinks that our criminals are fed sumptuously every day; and that it is mere sentimentalism, and bad policy to let them live so well! And how different from the feelings of thirty years ago! Then, as I remember painfully of my own experience, gaol-surgeons were in the eyes of the public unfeeling brutes, who let prisoners die as if they had been dogs. Now the same enlightened body thinks them fools who pamper them like pets. We, however, are not obliged to veer with

every shift of the weather-cock. Our duty is at the present to do our best that our criminals should suffer neither gain nor loss from public panics, but that their treatment should be based on the fixed principles of medical science and experience.

British Medical Journal.

SATURDAY, SEPTEMBER 5TH, 1863.

VIVISECTIONS.

WE have no hesitation in saying that the thanks of society are due to the Society for the Prevention of Cruelty to Animals, for having called the attention of Louis Napoleon to the so-called vivisections which are, and have for years past been, practised in France, and, as it is pretended, for scientific purposes. The attention of people in France has been thereby thoroughly aroused to the matter; and we cannot doubt that, at all events, some diminution of the amount of cruelties practised under the name of vivisections will result from the inquiry.

In the name, however, of the good cause which the aforesaid Society protects, we would ask the managers of it to proceed with the sense, moderation, and reason, which should belong to such a body, and not as blind enthusiasts, as devotees, or as misguided bigots. They should understand (as they certainly would do if they made themselves masters of the whole of the subject of experiments on the lower animals) that there is no comparison to be made between the unnecessary cruelties inflicted on animals in France, as above referred to, and the experiments made on animals for the purpose of settling important physiological questions. Enthusiasts usually act with indiscrimination, confounding together things of totally different signification, and setting them down as worthy of equal praise or condemnation. They thus injure the cause they advocate, however good in principle it may be. In this case, the managers of this Society do great injustice both to themselves and to men who possess as much sensitiveness, and feeling, and sympathy, towards the lower animals as they do.

Of this, at all events, that Society may be very sure: no efforts of theirs will avail to arrest the progress of scientific knowledge in this direction. So long as we are ignorant of the functions or uses of any part of the human body, so long, it is certain, will philosophers be engaged in the effort to clear up the mystery. The very basis of a scientific practice of medicine and surgery rests on our knowledge of the anatomy and the physiology of the animal body. Those gentlemen who attempt to cry down as wicked and base all experiments on the lower animals, have little idea of what would be the de-

graded condition of medicine and surgery at this day, but for the knowledge obtained through such experiments. They speak vainly and through ignorance. They little know the amount of suffering which these experiments have saved, and daily save, the human race. They have little idea of the amount of suffering which would still be inflicted on humanity by the practitioners of medicine and of surgery, if physicians and surgeons were ignorant of the facts which such experiments have supplied to them ; and which could have been supplied to them by such experiments alone.

We need not waste the time of our readers who understand these things, in pointing out how closely connected are our operations in surgery and our daily practice of medicine with the knowledge obtained through experiments on animals. But we would be contented to rest the decision of the matter even with the public on one simple case, which is comprehensible, we should imagine, to the understanding of the secretary and managers of the Society for protecting animals. We would willingly rest the question on the answer which they must give to this case.

They have all heard of chloroform ; of the incalculable amount of misery, of agony, which has been spared to humanity by the discovery of that blessing. It requires, indeed, some little mental effort, and some knowledge of what surgical operations are, to appreciate fully the value of this agent ; *i.e.*, the extent of suffering which it has removed. This agent, be it remembered, came out of the quiet laboratory of the philosophic mind which discovered it, and its blessings have been rapidly spread thence over the whole face of the earth. Well, this discovery was not made, and perfected, and rendered available for man's purposes, without the performance of experiments on animals ; it could not have been made without such experiments on living beings. Many animals were suffocated and, no doubt, died painful deaths in the eliciting of this grand discovery.

Now, such being the facts of the case, we ask these gentlemen : Are they ready to come before the world and declare that, in their opinion, the result does not justify the means through which it was obtained ? Have they the courage boldly to tell us, that they would rather that all the agonies attending the operations which are daily performed all over the world, from now to the crack of doom, should be still endured, than that half a score of dogs, or cats, or frogs, or mice, should have been suffocated ? But this is really, and positively, and manifestly, what they do affirm as their opinion, when they come forward and assert that *all experiments* on animals are unjustifiable, and to be repressed by their Society.

But these gentlemen are not such cruel enthusiasts as this, nor so bigoted to the cause which they

too blindly advocate, as to give such an answer as the above in the case of chloroform. True it is, that, according to their own avowed principles, they are logically forced to do so ; but their common sense would save them from such a grossly absurd conclusion. Until they tell us to the contrary, we shall conclude that, in this instance at all events, they admit that the result sanctified the experiments. And then, what follows inevitably from such admission is this, that *some* experiments on animals are justifiable. We ask those well-intentioned and highly honourable minded men who give their names to this Society, to ponder on this plain case ; and we are satisfied that, when they have done so, they will have the moral courage at once to accept the inevitable conclusion which results from its consideration.

We have selected this capital case of chloroform, because it supplies us with an instance which must bring conviction home to the mind of every sane non-professional man not blinded by enthusiasm or bigotry. To the professional man—to him, we mean, whose education enables him especially to connect cause and effect in matters physiological—scores of similar cases, not readily appreciable to the non-professional mind, will readily present themselves. His daily practice presents him with abundant proofs of the misery which he is enabled to spare human beings through the knowledge which he has obtained solely from experiments made on animals—knowledge which he could have obtained in no other way, and, therefore, suffering which he could not have relieved, had not those experiments been performed.

Now, if this protecting society, instead of vain and wrongful declamation against experiments on animals in the mass, were to occupy itself in discussing what experiments are justifiable, and what unjustifiable ; if it would attempt to define the limits within which true humanity should confine them, and the conditions under which alone they should be performed,—it would, in our opinion, be occupied with an excellent and humane work ; and, more than this, we believe that it would be really productive of immediate benefit to the objects of its sympathy. In such a work, that Society should have our very cordial approbation.

But there is one other fact to which we must call the attention of the Society for protecting animals ; and we do so in order to show the absurdities into which the Society has logically fallen through its unreasoning declamation against experiments on animals. A noble lord, and, if we are not mistaken, a keeper of foxhounds (which sporting position may he long maintain !), is at the head of the Royal Society for Protection of Animals ; and many honourable sporting gentlemen also support it. Now, the object of the Society is, as we understand it, to put

down, as far as it may, all unnecessary pain which may be inflicted on animals; and, under this head, vivisections are denounced. Are these gentlemen, then, and this noble lord, ready, on the principles which they advocate, to put down their guns and their foxhounds? They are bound to do so on their own principles, if consistent. We have no hesitation in asserting that more pain (and manifestly unnecessary pain) and suffering is produced in animals by the gun of the sportsman on the 12th of August, the 1st of September, and the 1st of October, than is occasioned in any twenty years of vivisections, as practised in this country. The fact is obvious, and readily comprehensible to any one who will give the facts of the case due consideration. Out of every hundred animals shot at, a certain percentage get away wounded. What is meant by the term *wounded*? Why, simply this: that the animal has been vivisected by the shot which struck it; and that, according to the nature of the part so cut up, will the pain of the animal be great or small, of short or long duration. A hare goes off with a broken leg, the two sharp ends of the bone sticking through the skin; and he may live for days in this state, and even recover from it. What vivisectioning process of the physiologist can be compared with the pain inflicted on this animal by the shot of the sportsman? The pain and torture suffered by wounded animals is, at all events, a positive fact, and is one which cannot be ignored by this Society, when properly brought under its notice, if it be logical and honest in its way of dealing with vivisections. Has not the physiologist a perfect right to turn round upon the sportsmen-managers of this Society, and ask them how they dare to bring this charge of cruelty against him, whilst they themselves create ten times the amount of unnecessary pain to animals for their mere amusement? What pain inflicted on an animal by the physiological experimenter is greater than the torture suffered by Reynard during that last quarter of an hour of his life, when, with his tongue hanging out of his mouth and his tail draggling in the dirt, he is putting on his last struggle to escape his destroyers? And the physiologist has this to say, which gives him an infinite superiority over the sportsman: he experiments with the object of relieving human suffering, and he operates whilst the animal is under chloroform. The sportsman has no other object than amusement in the business. We mention these things, be it understood, simply to show the absurdity of the position which the Society, or its Secretary, has assumed in this attempt to control the doings of scientific men.

We will, on a future occasion, point out what seem to us to be the conditions under which vivisections may be justifiably performed.

THE SEA-SIDE CONVALESCENT HOSPITAL.

OUR readers may remember, that a testimonial in favour of the Sea-side Convalescent Hospital was, some years ago, extensively signed by London hospital physicians and surgeons. This was well. But the use made of this testimonial by the Convalescent Hospital managers is not well. The managers of the hospital, with the Bishop of London president, and the Earl of Chichester vice-president, and so on, make an appeal to the public; and in doing so, they take an opportunity of issuing something like a slander upon London hospitals. If this had been nothing but an ordinary advertising move on the part of the Sea-side Hospital, we should have taken no notice of it; but we feel bound to object to it, because the medical testimonial above referred to, with all the signatures attached, is appended to the something like a slander; and, consequently, London hospital physicians and surgeons are made to appear in the quality of birds that foul their own nests; or, rather, are made to endorse statements which they know are untrue. The testimonial is put in such a way in this document, as to lead the reader to suppose that all the sentiments of the penny-a-liner-appeal which precedes it are subscribed to by the physicians and surgeons of London hospitals whose signatures are attached to the testimonial. In the appeal we read as follows:—

"But the (General) Hospital has also its *dark side*, its depressing associations. 'From morning to night, in the long dreary hours of the sick man, is there aught in those gloomy corridors that shall supply, through surrounding mental influence, agencies at all curative, at all hopeful of cure, to the disordered body? We say despairingly No! The wards are dreary as the grave. No single feature there to cheer or solace; the very walls themselves are meagre, lifeless, cold, and blank; even the rays of the life-giving Sun find too often no entrance. You shall place a flower, a hardy flower, in those corridors; you shall watch it, water it, pay it every attention, and, in spite of all the art of a Sir Joseph Paxton himself, it would die! In such places how can sick men recover? But this evil is as nothing compared with the other surrounding. Misery here, misery that requires silence, comfort and retirement, meets misery as bad, nay even worse than its own. It is a wearing and painful sight to the healthy attendants; how much more so to the prostrated sick?' Amid such associations, *Science may arrest disease—restoration to health is impossible*. The annexed testimonial, signed by the highest dignitaries of the Church, and by nearly every man of eminence in the medical profession, speaks more eloquently," etc.

Where the Sea-side Hospital picked up the above bit of flowery buncombe, which it quotes, for the purpose of opening the purse-strings of the public we know not. Nor do we care to know. But we beg to tell that Sea-side Hospital that it has not acted fairly in making it appear that the physicians and surgeons of London endorse such untrue, and trumpery, and catch-penny stuff, as this. For its own credit, we trust that the Sea-side Hospital will

not again append the testimonial, with the names which are attached to it, to such a document as the one we are referring to. The proceeding is unworthy of the institution. We need hardly say, that there is not a single one of the medical gentlemen who signed that testimonial who would not consider it an insult to have his name quoted as sanctioning the terms of the appeal. The testimonial, used in this way, is prostituted to a purpose for which it was never intended. The Sea-side Hospital managers ought to know that not one single one of their names would ever have been obtained to the testimonial, if the signers had been aware that they would have been used in this way. In speaking the sentiments of ourselves, we know that we are speaking the sentiments of other London hospital medical men who signed the testimonial.

THE WEEK.

EVERY year several deaths are recorded from accidental poisoning, the poison being swallowed through the carelessness of the druggist who made up the draught, etc., taken. Surely, facts of this kind indicate that the making up of prescriptions ought to be committed to the hands of those, and of those only, who have proved themselves, in some way or other, capable of duly performing the important business they have taken in hand. This week again furnishes us with an instance of death from carelessness in the supply of physic. Tincture of rhubarb was sought for at the druggist's shop. Laudanum, or some narcotic, was supplied; and the child was poisoned. Unfortunately, the vomit, etc., were put away; and analysis could not show the nature of the poison, so as to bring the charge home to the druggist.

"Mr. Latham made a *post mortem* examination. He was of opinion that death had resulted from some narcotic poison. The child who had been sent for the tincture of rhubarb pointed out the bottle from which she had been served, and said that the medicine had been given her from that bottle only. This bottle proved to be the one in which laudanum had been kept. The jury found that there was no direct evidence to show the cause of the deceased's death. Both the jury and himself, said the coroner, felt that the medical evidence had to some extent failed; but there was no doubt in the minds of the jury, or in his own mind, that this child had died from having had poison administered to him which had been sold for tincture of rhubarb. But the medical evidence was not of sufficient strength to justify a verdict of manslaughter. He had, however, to caution Woolley, the druggist. He was sorry to find that this was not the first time he had sold poison by mistake. He should like the public to know clearly and distinctly that the poison had been sold by him in mistake; and he trusted that the censure he was then called upon to administer would exercise a salutary influence on his mind, so that consequences of a more serious nature might not hereafter follow in that locality from the use of drugs which he might dispense. 'There is no doubt whatever,' concluded the coroner,

'that this child has been lost by the poison; but the jury give you the benefit of the partial failure of the medical evidence. Do consider that you are very seriously to blame, and that you deserve the reprimand that I have now given.' Mr. Woolley, who is a young man, apparently about 25 years of age, and who has been an articled apprentice to a surgeon, was very much affected during the delivery of the coroner's reprimand, and, burying his face in his handkerchief, gave free vent to his tears."

THE annual meeting of the British Association for the Advancement of Science has been held at Newcastle-on-Tyne, under the presidency of Sir W. G. Armstrong. It appears to have passed off very successfully, as far as can be judged from the number and titles of the papers read in the several sections. We shall give, as opportunity offers, abstracts of such papers as are likely to interest our readers. The next meeting is to be held at Bath; invitations were also received from Dundee, Nottingham, and the Potteries. Sir Charles Lyell is to be the next president.

METHYLATED spirit, though condemned as dangerous by the Pharmaceutical Society in the manufacture of tinctures, is, it appears, nevertheless extensively employed for that purpose, and especially in the preparation of sweet spirits of nitre. This kind of spirit, a druggist tells the *Times*, affords a cheap and pleasant stimulus; "taken with hot water and a lump of sugar, it is tolerably palatable." He adds that the Treasury is mulcted to the extent of a million a year in consequence of the illegitimate use of strong drinks in this way.

THE ravages committed in our army through syphilitic diseases, the fearful number of men annually kept off duty and permanently injured thereby—to say nothing of the future generation of diseased offspring thence resulting—are attracting at last the attention of the public. What is required to meet the evil, and what alone in this country is practicable, is, that lock hospitals should be established in all our garrison towns; or, in other words, that the freest means of cure should be opened to those unfortunate females who spread these disorders among the troops. The idea frequently suggested by members of the profession—viz., that prostitutes in this country should be regulated after the continental fashion—is one which, we are very certain, will never be put in practice in this country. The practice interferes with the liberty of the subject, and, in our opinion, is indefensible on moral grounds, and only very partially effects the object desired. We refer, however, to the subject for this reason: If these lock hospitals are established, it must be by government aid. Hence they will offer a good opportunity for testing practically the practice of the profession respecting the matter of

gratuitous medical services. We do sincerely trust that none of our brethren will be so weak as to offer to undertake the duties of these anticipated lock hospitals gratuitously. We speak thus early, in anticipation of coming events, that the profession may have an opportunity of deciding how they will act when the time for making the appointments comes. Here is a case in which the profession has manifestly the ball in its hands, if our brethren will only hang together. There is no occasion, in this instance, to be shouting out to the powers in office to help us. All we have to do here is simply to be true to ourselves. Let us be resolved to be wise in time.

THE letter of our Liverpool special correspondent contains an account of a trial which has recently taken place in that town, and the result of which must be regarded as of great importance to surgeons. For, had the prosecution succeeded in demonstrating to the satisfaction of the judge and jury, that Mr. Hakes and his colleagues acted unjustly towards the patient, the verdict would probably have been such as almost to deter surgeons from performing operations, unless their patients should first give them an indemnity from prosecution in the event of mishap. There is, indeed, scarcely an operation in surgery, that is not liable sometimes to turn out wrong. In the present instance, we have been informed, the difficulties and dangers of an attempt at reduction of an old standing dislocation of the thigh-bone were explained to the patient, who of his own free will submitted to the experiment, and could, therefore, have no just ground for complaint. As to the part taken in the trial by members of our own profession, two London surgeons—Messrs. Curling and Erichsen—were ready to give evidence for the defence; while two others—who and whence we know not—were in court for the purpose of “aiding the prosecution.” They may congratulate themselves that they lost the opportunity of disgrace which their appearance in the witness-box would have afforded. As to Mr. Hakes and his colleagues, they deserve, and we are sure have, the congratulations of their brethren on the fortunate issue of the persecution to which they have been subjected.

THE researches of M. Mène show that the quantity of carbonic acid contained in the air varies in the course of the year; it increases in February, March, April, and May; and diminishes from June to August, increasing again from September to November: the maximum is found in October. During the night there is more carbonic acid in the air than during the day, and more after rain.

Dr. Tugendhart of Vienna has proposed a scheme for the benefit of patients who want a doctor, which we recommend to the favourable consideration of all those who take an interest in the “*who to consult*”

movement. Is the one scheme the parent of the other? “Patients who come to Vienna,” says Dr. Tugendhart, “to consult medical authorities, meet with so many difficulties, that they rarely ever obtain a satisfactory consultation. I have thought it well to establish an agency for consultation, the object of which is—1. To assist the patient in choosing as quickly as possible a consultant specially suited for his complaint; 2. To arrange and direct the consultation; 3. To make an exact and scientific report of the results of the consultation, for the benefit of the ordinary medical attendant; and 4. To give consultations by correspondence. Most of the clinical professors to whom I have explained my proposal have recognised its great utility; and I trust that the scheme will receive the patronage of practitioners and of the public in the different provinces.”

M. Matthieu (de la Drôme) who, as our readers may remember, at the beginning of the year, promised us a fearfully rainy summer, has tumbled on a most unfortunate year for the fulfilment of his prophecy.

On the 15th of August, Napoleon’s *fête*, all the expectant world in France is in agonies. On this day, the *Moniteur* issues the list of those who are to be decorated, or raised a step in the Legion of Honour. Of course, there are grievous many disappointments, and many surprises, on that day. Happily, we doctors on this side of the water are spared this trial. The homœopaths have had a lift through the person of a Dr. Cabarrus, who has been raised to the rank of officer of the Legion. Dr. Cabarrus belongs to the homœopaths; but we read that his connection with them is “rather elastic”; which compliment is a very dubious one as regards his honesty. To the grade of Chevalier have been exalted Maisonneuve the rash, Dr. Anselme, Dr. Rochard, Dr. Salle, and many others. How would a bit of ribbon suit our English button-holes?

Professor Bernard presented a note from M. Delore on the absorption of therapeutical agents by the skin. M. Delore considers that the action of a large number of these agents is confined to a local action on the papillæ of the skin; that narcotics, for instance, have a sedative, and resolvents an excitant action. Mineral waters act for the most part in a like manner. He does not, however, deny the fact of cutaneous absorption. He considers a medication to be absorbed when it is introduced into the vessels of the skin, and its presence may be traced in the body. Therapeutical action does not, therefore, in his view, necessarily imply the absorption of the therapeutical agent. He admits the absorption of mercury when salivation is excited—of belladonna when the pupil is dilated—of iodine when its presence can be shown in the urine. Of 117 cases observed by him, absorption took place in one-half.

M. Blanchet, in a paper, points out the practicability of catheterism of the duodenum and of the first portion of the large intestine, and the use of the operation.

RECOMMENDATIONS OF THE GENERAL MEDICAL COUNCIL,

IN REFERENCE TO GENERAL AND PROFESSIONAL EDUCATION; AS AMENDED IN 1863.

I.—General Education and Examination. The Medical Council are of opinion that it is desirable—1. That all students pass an examination in general education before they commence their professional studies. 2. That the time of commencing professional studies shall be understood to be the time of commencing studies at a medical school; and that no qualifying body be held to have complied with the recommendation of the Council which shall allow the examination in general education to be passed after the commencement of professional study. 3. That, as far as may be practicable, testimonials of proficiency granted by the national educational bodies, according to the following list, be accepted, with such modifications as the Medical Council may from time to time think proper to make. 1. A Degree in Arts of any University of the United Kingdom, or of the colonies, or of such other universities as may be specially recognised from time to time by the Medical Council; 2. Oxford responses or moderations; 3. Cambridge previous examinations; 4. Matriculation examination of the University of London; 5. Oxford middle class examinations (senior); 6. Cambridge middle class examinations (senior); 7. Durham middle class examinations (senior); 8. Durham examinations for students in arts, in their second and first years; 9. Durham registration examination for medical students; 10. Dublin University entrance examination; 11. Queen's University, Ireland, two years arts course for the diploma of licentiate in Arts; 12. Preliminary examinations at the end of A.B. course; 13. Middle class examinations; 14. Matriculation examinations; 15. First class certificate of the College of Preceptors; 16. "Testamur" granted by Codrington College, Barbadoes; 17. Degree of Associate in Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and mathematics. 4. That the examination in general education be eventually left entirely to the examining boards of the national educational bodies recognised by the Medical Council. 5. That no certificate of proficiency in general education, which does not affirm the proficiency of the candidate in Latin, be deemed a sufficient proof of preliminary education previous to the commencement of professional studies. 6. That students who cannot produce any of the testimonials referred to in the third resolution, be required to pass an examination in arts, established by any of the bodies named in Schedule (A) of the Medical Act, and approved by the General Council, provided that such examination be in every case conducted by a special board of examiners in arts. 7. That, without professing to lay down any complete scheme of general education for persons intending to become members of the medical profession, the Committee recommend that the scheme of examination in Arts of the licensing bodies be, as nearly as practicable, similar to that of any of the national educational bodies above specified. 8. That after October 1st, 1861, all medical students be required to be registered. 9. That the lists of students registered be closed within fifteen days after the com-

mencement of each session or term. 10. That no student beginning professional study after September 1861, be registered, who has not passed an Arts examination in conformity with Resolutions 3 or 6. 11. That the several bodies in Schedule (A) of the Medical Act, either jointly or severally, open a register for students commencing their studies in medicine. 12. That after Jan. 1863, all junior middle class examinations be excluded from the list. 13. That the said register be opened on the first day of each session or term, and remain open for fifteen days; and that within seven days after its close, the officer in charge transmit a duly authenticated copy thereof to the Registrar of the Branch Council of that division of the United Kingdom to which the body or bodies belong. 14. That the Registrar of the Branch Council lay the copy of the said register before the Branch Council, in order that the Branch Council may take whatever steps may seem necessary to secure its accuracy; and that it be thereafter transmitted, with any remarks by the Branch Council thereon, to the Executive Committee. 15. That the licensing bodies shall have power to admit exceptions as to the time of registration, if satisfactory to them, and transmit lists of such exceptions to the Branch Council of the part of the United Kingdom in which such exceptions shall have been granted, with the grounds stated. 16. That the various educational and licensing bodies be requested to transmit to the Registrar of the General Council, returns embodying any alterations which they may from time to time introduce into their courses of general study and examinations, which qualify for the registration of medical students; and that a copy of such returns be sent by the Registrar, as soon as convenient, to each member of the General Council.

II.—Professional Education. 17. That the age of twenty-one be the earliest age at which any professional licence shall be obtained. 18. That four years of professional study be required after the examination in general education.

III.—Professional Examinations. 19. That the professional examinations be divided into at least two distinct parts; that the first be not undergone until after the termination of two years of study; and the final examination not until after the termination of four years of study. 20. That the first professional examination be conducted partly in writing and partly *visà voce*; and that such parts as admit of it be made as practical and demonstrative as possible. 21. That the second examination be conducted partly in writing, partly *visà voce*, and practically, so far as may be convenient and attainable. 22. That the professional examinations be held by the several licensing bodies (except in special cases) at stated periods, to be publicly notified. 23. That returns from the licensing bodies in Schedule (A) be made annually on the 1st of January, to the General Medical Council, stating the number and names of the candidates who have passed their first as well as their second examinations, and the number of those who have been rejected at the first and second examinations respectively; and that the Registrar forward a sufficient number of forms, with a notice for their being returned, in due time. 24. That it be recommended to all the examining boards that they should require from every candidate for examination before them, a statement, signed by himself, whether he has, or has not, been rejected within three months by any of the examining boards included in Schedule (A) of the Medical Act. 25. That it is not desirable that any university of the United Kingdom should confer any degree in medicine or surgery, whether that of Bachelor, Doctor, or Master, upon candidates who have not graduated in Arts, or passed all examinations required for the Bachelorship in Arts, or the examinations equivalent to those required for a degree in Arts.

Special Correspondence.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

THE action for alleged surgical negligence, which has been so long expected to come off, was commenced on Friday, August 28th, before Mr. Justice Mellor and a special jury. The plaintiff, Hodges, a man about 40 years of age, was deputy-registrar of the Liverpool Court of Passage; the defendants, Messrs. David Chalmers, Ellis Jones, and James Hakes, the three honorary surgeons of the Northern Hospital. Mr. James, Q.C., Attorney-General for the Duchy of Lancaster, for the plaintiff, opened the case, and read from Sir Astley Cooper's work on *Dislocations* a paragraph to the effect "that the latest period after a dislocation at which it is proper to attempt forcible reduction is three months for the shoulder, and eight weeks for the hip, except in persons in advanced age or of very relaxed fibre." The plaintiff's statement was in substance as follows. When walking to the court where he was employed, on a very wet day, his foot slipped; and, having an umbrella in his hand, he was unable to break his fall, and came down with great violence on the pavement. On rising, he found he was unable to walk, took a cab and went home to bed, where he remained for a few days, but had no medical advice whatever. In a short time he was able to walk with a crutch and a stick, and resumed his official duties, walking to and from the court daily, a distance of more than a mile. After some time, the frosty weather rendering the roads slippery, he became nervous about falling, and then for the first time—namely, eight months from the date of the injury—he consulted his family doctor, who, being a physician, referred the patient to Mr. Hakes, one of the defendants, who, after a careful examination, pronounced it a dislocation of the hip, and advised him to undergo an attempt at reduction, as, in his present state, he would be lame for life; whereas, if the operation were successful, it would greatly improve his condition. It was proposed that he should go into the Northern Hospital, to which he consented; and, while in that institution, he underwent, according to his account, three attempts at reduction, each time under the influence of chloroform. Every operation was followed by great suffering; and at one time he made up his mind he was going to die. After the third attempt, Mr. Hakes told him that, unfortunately, the operation had been unsuccessful; and that, what was worse, the thigh-bone was broken. The limb was set; he remained in the hospital until the fracture had firmly united; and has ever since followed his usual occupation, is able to walk with a stick and a high-heeled boot; but he alleged that ever since the fracture, now more than twelve months, he has suffered much greater pain than he did before, and that he cannot walk so far nor without more fatigue than he could before he had been under the defendants' care.

Such was the plaintiff's story, embellished here and there with ingenious attempts to make things appear as

unfavourable as possible to the defendants; who, however, he was obliged somewhat reluctantly to acknowledge, treated him with every kindness and attention. A friend was called to corroborate some portions of his evidence, and deposed to being present at the operation, and having heard distinctly the bone snap. He was also in the room during the consultation, and overheard the doctors, who, he said, "differed as to the dislocation". No further evidence was offered on the part of the prosecution; and the affidavits of the defendants were read, in which they described the case as one of long-standing dislocation of the femur into the ischiatic notch, and detailed the steps they took to reduce it—namely, two attempts by forcible extension by the pulleys. On the first occasion, failure was due to some part of the apparatus having given way. On the second, when extension had been carried as far as was deemed proper, and while one of the operators was attempting by manipulation to lift the head of the femur into the acetabulum, the thigh-bone snapped, producing a transverse fracture of the femur about an inch below the great trochanter. The fracture was set, and in due course the defendant discharged from the hospital, with the bone firmly united, but the dislocation still unreduced.

This being the plaintiff's case, Mr. Brett, Q.C., submitted that there was no case against any of the defendants, in which the learned judge at once concurred; observing that, although the plaintiff was much to be pitied, and that they must all regret that the operation was not successful, it was monstrous to attach blame to the surgeons, who had done their best in a difficult case; nor should they forget that there was risk in all surgical operations. The plaintiff was accordingly nonsuited.

There was a large attendance of medical men in court, all of whom were, of course, deeply interested in the proceedings. Before the case commenced, all witnesses, not excepting medical men, by desire of the prosecution, were ordered out of court—a proceeding which seemed to excite much surprise, and even elicited an exclamation from the judge. In addition to local celebrities, Mr. Erichsen and Mr. Curling were in attendance, ready, if called upon, to come into court to give evidence for the defence. It is confidently stated that at least two medical men were in court for the purpose of rendering assistance to the prosecution. Fortunately for themselves, and seemingly for the credit of their profession, they were not placed in the witness-box; and, therefore, their conduct escapes any more tangible reproof than the withering contempt and pity of all right-minded and honourable men.

On the whole, the issue of this trial must be regarded as highly satisfactory, showing as it does that surgeons are not responsible for unavoidable casualties occurring in their practice; and therefore, provided they use reasonable skill and caution in the course of their treatment, they are not called upon to defend themselves against unfounded charges of malpraxis, concocted by designing and ungrateful patients. It is to be hoped this case will put a stop to the new feature in the speculative commerce of the present day, which consists in attempting

to extort money by trading upon the casualties of life. One other lesson may, I think, be drawn from this case; and that is, the impropriety, or rather the necessity for extreme caution, in allowing non-professional persons to be present during consultations and operations; not because we fear publicity, or desire to surround our proceedings by mystery, but from the inevitable tendency on the part of the general public to misunderstand, and perhaps unintentionally to misrepresent, what they see and hear on such occasions, which may do and indeed often has done much mischief to the profession and to the public themselves.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 1st, 1863.

HENRY OLDHAM, M.D., President, in the Chair.

Fibroid Tumour Situated in the Anterior Wall of the Uterus, which Obstructed Labour. Dr. ROBERT BARNES exhibited the uterus of a woman who had died soon after labour from the effects of ruptured bladder. The labour had been obstructed, and there had been retention of urine for many hours. The patient had been attended by an unqualified practitioner. The cause of the obstruction to the delivery and of the retention of urine was a fibroid tumour situated in the anterior wall of the uterus near the cervix, which had been driven down by the child's head and jammed against the symphysis pubis, closing the urethra. Dr. Barnes observed that in the decidua *débris* taken at a distance from the seat of the placenta he had in this case found atrophied remains of the chorion villi, which had not been wanted for the formation of placenta.

Hydrocephalus with Spina Bifida. Dr. BARNES exhibited a stereoscopic photograph, representing a child in whom hydrocephalus coexisted with spina bifida. The child was a year old. The hydrocephalus only became developed at the age of nine months. Dr. Barnes cited this case as an illustration of the views of Mr. Hutchinson, who regarded spina bifida as due to an affection of the spinal arachnoid, similar to the disease of the cerebral arachnoid which resulted in hydrocephalus, and not as a malformation dependent upon arrest of vertebral development.

Distortion of the Head in Face-Presentation. Dr. BARNES exhibited a stereoscopic photograph of a child's head remarkably distorted in consequence of delivery by face-presentation. The occipital region was flattened in, whilst the forehead was enormously raised and projected. Dr. Barnes observed that such cases illustrated the mechanism of face-presentation, and remarked that, although the deformity would quickly disappear in a great measure, yet that some degree of the peculiar moulding imparted to the head by the mode of birth would probably remain in after-life. In like manner, the sugar-loaf occipital elongation resulting from the common mode of birth was not unfrequently retained in adult age.

Case of Tuberculosis of the Uterus. Mr. R. S. TOMLINSON related the case of a lady, aged 55, who had been suffering from a profuse uterine discharge upwards of two years. The discharge was of a dirty-brown colour, without smell. The uterus was found to be enlarged, but no conclusion could be formed as to the nature of the disease. She died fifteen months afterwards. The uterus was found enlarged, and the cavity of the organ

was filled with tubercular masses; the Fallopian tubes were enlarged, and similarly affected. The inner surface of the uterus presented, on removal of the tuberculous masses, a honeycomb appearance.

Dr. OLDHAM remarked that he had seen at least six cases of uterine phthisis. The disease appeared to attack the cavity almost always, and he had usually found the uterus to be of small size. In one case, however, he had seen the organ enlarged, and the patient died of tubercle elsewhere.

ON THE USE OF WIRE LOOPS, HORSE-SHOE WIRES, ETC., FOR CORRECTING ANTE- AND RETRO-VERSION, OBLIQUITY, AND PROLAPSE OF THE UNIMPREGNATED UTERUS. BY CHARLES CLAY, M.D.

The author, in this paper, endeavoured to point out the positive injury done by the use of the generality of pessaries, particularly the old class, which, on account of their cheapness, are still sanctioned by the profession. Improved stem pessaries were shown to be so expensive as to be little applicable to the extent of the evil for which they are proposed. In order to meet this difficulty, the author proposed a new and very simple series of instruments suitable for various malpositions of the uterus, ante- and retro-version, obliquity, and prolapse, and at a cost so extremely small as to favour their general application. These instruments were made of medium-sized copper wire, bent and soldered in a convenient form, and tinned.

Dr. GRAILY HEWITT believed that in most cases of retroflexion of the uterus mechanical treatment was not applicable; but that in a few cases in which a cure of the distortion was possible, such mechanical treatment was required. He had been in the habit of using an instrument, with the results of the action of which he was perfectly satisfied. It consisted of a stem of ivory of the length of the uterine cavity, and straight; this stem was mounted on a globular air-pessary. The air-pessary, when distended maintained the stem in the uterus, and prevented it from slipping out. The instrument was less liable than others, he believed, to injure the uterus.

Dr. ROUTH said the use of internal pessaries for retroversion was always hazardous. Dr. Hewitt's instrument he believed to be very ingeniously contrived; but even this failed sometimes to give relief. Dr. Simpson's was very efficient; but that also produced occasionally serious results. One drawback in this and in Dr. Hewitt's was that the stem *in utero* was too long, and irritated especially the fundus uteri. Inflammation of this part was accompanied with very distressing as well as severe consequences. Moreover, it was chiefly due to this fundal endometritis that retroverted womb gave annoyance at all. In the absence of this fundal inflammation, many patients went about with retroverted wombs without inconvenience. Hence one advantage of using short-stemmed pessaries, by which all further irritation at the fundus was avoided. The reason of this distress was obvious. That part of the uterus was supplied by nerves from the renal plexus, and not the inferior aortic, and was therefore in direct nervous relation with the splanchnic nerves and semilunar ganglia superiorly, and with the ovaries (also supplied from the same sources) inferiorly. Dr. Simpson's instrument fixed the uterus *in situ*, and so every jerk of the body was felt by the uterus. Dr. Hewitt's instrument was likewise too long in the stem, though this might be remedied; but although it admitted considerable freedom of movement of uterus, it was sometimes forcibly ejected, because not always firmly secured inferiorly. To meet these difficulties, he (Dr. Routh) had devised a modification. His instrument could sometimes be borne where others were not tolerated. It consisted of a coiled wire bell-spring, covered with caoutchouc, and at about two inches or less from its upper end separated by a gutta-percha disc from the lower portion. Upon the disc, with the coiled

wire within the organ, the uterus rested, while the lower end was secured by tapes or a napkin. By means of a sound to which the curve of the retroverted uterus was previously given, and then passed within the coil, it might be easily applied. The spring, when the organ was replaced, would by its elasticity maintain the organ *in situ*, while it would not impede full movement of the uterus with the movements of the body. Of course the instrument should not be used till after all inflammation had subsided, under the use of leeches or other local depletion, aperients, etc. Sometimes the use of spongetents to reduce the uterine volume, after Dr. Moir's plan, was also of great use as a previous measure.

Dr. GREENHALGH had found misplacements of the uterus extremely common, and productive of considerable distress among the patients at St. Bartholomew's Hospital and in private practice. In prolapsus and procidentia he strongly recommended the cautious use of a modified Zwanke's pessary, which formed a floor upon which the uterus could rest, and took off all tension from the ligamentous supports of the uterus; while astringent injections could be thrown into the vagina, with a view of constricting the dilated and relaxed parts forming the floor of the pelvis. In retroversions and retroflexions he had used a great variety of mechanical contrivances, both intrauterine and vaginal, but, he was compelled to admit, with little or no benefit. He entirely concurred with most practitioners that all intrauterine supports should be done away with, on account of the irritation and inflammation thereby occasioned, which had too frequently led to fatal results. The plan he at present pursued in such cases was, first to remove all complications, when possible, by appropriate local and general treatment; and then from time to time to replace the uterus by means of the finger or uterine sound, and in some few cases to introduce sponge-tents into the seat of the uterus; thus he had succeeded occasionally in rectifying the faulty position of the uterus, after which, in a small proportion of cases, impregnation had followed.

Dr. BARNES regarded the treatment of retroflexion of the uterus as a subject of great importance. He had occasionally, by the adaptation of various forms of pessary constructed for special cases, succeeded in relieving this complaint. With reference to prolapsus uteri, he could not understand how any one largely engaged in the treatment of uterine disease could ignore the value of pessaries if these were constructed on sound principles. It was important to distinguish the varieties of prolapsus. There was one class which occurred in women who had passed the child-bearing age, in which the prolapsus depended upon atrophy of the uterus and absorption of the fat and other tissues, which in younger women padded the pelvis and helped to keep the pelvic organs *in situ*. Wanting this support, the uterus was apt to fall through under straining from cough or from labour. This form he called prolapsus from senile atrophy. It was so purely a mechanical disorder, that it required mechanical means as a substitute for the natural support that was lost. Nothing answered so well here as a pessary. The form he used had a small cup which received the uterine neck; this cup was supported on a curved stem so small as not in any way to disturb the vagina, which, on the contrary, was able to grasp the stem and almost to support the pessary by itself. The end of the stem was, however, suspended by elastic bands to an abdominal belt. This elastic support enabled the uterus and pessary to move freely, as in the natural condition, under the various movements of the body. This form of pessary, he understood, had been in use at King's College Hospital. In a vast majority of cases it answered admirably. He had never less than a hundred women under his care wearing this instrument. It gave complete relief, and enabled them to follow any laborious occupations with comfort. In an-

other class of cases occurring during the child-bearing period, and commonly dependent on inflammation or congestion with enlargement of the uterine neck caused by delivery, pessaries were not so useful. It was often found that the prolapsus was cured by removing the uterine engorgement which caused it. But even here there were cases in which the support and rest afforded by the pessary he had described were of essential service in removing the congestion and inflammation. When the uterine neck was prolapsed, the circulation of the blood was mechanically retarded. When the uterus was replaced, the vessels being restored to their natural position, the circulation was freed, congestion and œdema disappeared, the bulk and weight of the organ diminished, and the vagina, being enabled to contract around the stem of the pessary, gradually recovered its tone; and thus the pessary might fairly be said to cure the prolapsus. The value of the stem-pessary in procuring "rest" for the prolapsed uterus, complicated with œdema and engorgement, was, he felt satisfied, not sufficiently appreciated. But the pessary must be well constructed on the principle he had described. The balls, still too often used, which acted only by stretching the vagina and filling the pelvis, only made matters worse, and were the most absurd and mischievous contrivances.

Dr. OLDHAM, being asked by some of the Fellows to give the results of his experience as to the use of pessaries generally, stated that he rejected them; he had tried them all, but had come finally to confine his mechanical treatment to the employment of simple external support by means of a well-arranged pad and bandage, and that only in very bad cases; the internal treatment consisting in the use of the cold douche, and attention to the state of the general health. In very many cases constipation was a troublesome complication. Small doses of aperients were most efficacious; out-door exercise, especially horse exercise, was most valuable.

Case of Difficult Labour; Delivery by Forceps; Retention of Urine and Subsequent Sloughing of Lining of Bladder. By WILLIAM MARTYN, M.D. Dr. MARTYN was called at 7 P.M., on April 17th, to attend Mrs. H. in labour at the full time; her fourth confinement. Sharp pains began the night before, the liquor amnii having escaped three or four days. For the last seven hours the pains had been violent and incessant, without satisfactory progress. The forehead of the child presented, the face looking towards the right sacro-iliac joint. The brim of the pelvis was small and round; meconium appeared in the discharges; the patient was much exhausted. After drawing off the urine, Dr. Martyn applied the forceps and brought down the child (full size), dead, in twenty minutes; the head was much disfigured, and the occiput forced back between the shoulders. The patient was now doing well. On April 22nd, four days after delivery, the patient was very ill: she was fevered, exhausted, and very restless; she complained of much pain in her belly; the vaginal discharges were offensive. On inquiring if she had passed urine, Dr. Martyn learned that it had dribbled away for some time, but she had passed none naturally since her labour. Her belly was very full and tender; pulse very quick. He drew off five pints of bloody highly ammoniacal urine; the room stank with it. For eight days the catheter was required twice a day; the urine was loaded with dirty offensive matter. There was much pain and distress about the bladder. On May 17th, she could still not pass any urine except by drops. Lumps of thick offensive matter escaped by the urethra from time to time. On the 19th, she could not pass urine; she was often upon her knees making great efforts to do so. Dr. Martyn found a portion of slough hanging out of the urethra, which he drew out easily; it was not large. In the evening more appeared, which the patient drew out of the urethra; it was followed by a gush of offensive urine.

The slough appeared to be the whole lining of the bladder, and consisted of mucous and submucous tissue, some muscular fibres, and a patch of about the size of a half-crown, with the appearance of a peritoneal surface; the mucous surface had some grit of phosphates upon it. The slough measured eight inches by five or six. Such a specimen had been shown by Mr. Spencer Wells under similar circumstances, when it was doubted whether it was human bladder tissue at all. The patient recovered, but the bladder remained irritable; she could not retain urine more than an hour or so. Dr. Martyn believed that the urine, in being long retained, becomes sufficiently ammoniacal to produce the well known caustic effects of ammonia on the animal tissues, and hence all the results; the mucous lining, in fact, becoming blistered and destroyed by the changed urine. The catheter then was the efficient means to prevent such a destructive process in every case.

Ascites with Ovarian Disease. By GUSTAVUS MURRAY, M.D. The subject of this case was a young woman, aged 28, married, but without family. She was admitted into the Great Northern Hospital, and was tapped on June 12th, when thirty-three pints of fluid (ascitic) were drawn off. She refilled in the course of three days, and was again relieved by the wound giving way; but nevertheless she still rapidly continued to fill, and died on the 27th from peritonitis, which set in on the fifth day after tapping.

Post mortem examination disclosed an ovarian multilocular solid tumour, weighing six pounds. It was firmly bound down in the cavity of the pelvis, but capable of easy and complete removal. Dr. Murray found that the trocar had pierced one of the upper cysts of the tumour, which contained a thick creamy fluid, and thought it likely that this coming in contact with the peritoneum acted as an irritant, and gave rise to the inflammation which proved fatal. The state of the patient on her admission to the hospital was such that it was considered better to tap first, and endeavour to improve her general health, which had not been good for eighteen months, before proceeding to ovariectomy. The author brought this case before the Society as one showing the fatal result of tapping; whereas, even in her emaciated condition, he believed that, had ovariectomy been performed, the case might have done well.

Medical News.

APOTHECARIES' HALL. On August 27th, the following Licentiates were admitted:—

Chapman, James, Wingham, Kent
Hayden, William Gallimore, Charing Cross Hospital
Kelly, Thomas, Tipton, Staffordshire
Kendal, Cuthbert Robert, Gateshead
Williams, Robert, Liverpool

At the same Court, the following passed the first examination:—

Powne, Benjamin Lambe, St. Bartholomew's Hospital

APPOINTMENTS.

POOR-LAW MEDICAL SERVICE.

DOWNS, Thomas R. C., Esq., to the Munslow District of the Ludlow Union.
FENNELLY, Richard, L.R.C.P. Edin., to the Finglas and Glasnevin Dispensary District of the North Dublin Union.
FOLLIOTT, Francis, L.R.C.P. Edin., to the Kilworth Dispensary District of the Fermoy Union, co. Cork.
KEATINGE, Patrick, M.D., to the Callan Dispensary District of the Callan Union, co. Kilkenny.
LARKIN, Charles R., Esq., to the Bishop's Castle No. 2 District, and for the Norbury District of the Clun Union, Salop.
MACNAUGHTEN, Peter, Esq., to the Parochial Board of Morven, Argyshire.
WHITE, J., Esq., to the Road District of the Frome Union.

ROYAL NAVY.

CLOSE, Henry A., Esq., Assistant-Surgeon, to the *Royal Adelaide*.
HART, George V., Esq., B.A., Assistant-Surgeon, to the *Medusa*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

MORGAN, W. W., M.D., to be Surgeon 2nd Administrative Battalion Monmouthshire R.V.

DEATHS.

BROWN, W. C., Esq., Surgeon in Her Majesty's Indian Service, at Exeter, aged 41, on August 26.

BOND. On August 25th, aged 22, Robert Sutton, second son of John W. Budd, M.D., Plymouth.

MORSE, John N., Esq., Surgeon, late of Moulmein, at Lodowick Terrace, Regent's Park, aged 43, on August 11.

BEQUEST. The late Dr. Avery Roberts has left £500 to the Lewes Dispensary.

A PLAGUE. Five hundred sick soldiers have arrived at New Orleans from Vicksburg. A malignant typhoid fever is raging at Vicksburg, seven out of ten cases proving fatal.

RECIPE FOR A DEEP BLACK NEUTRAL INK. Take 42 ounces of powdered galls, 15 ounces powdered Senegal gum, 18 quarts of distilled or rain water, 18 ounces of green vitriol free from copper, 3 drachms of liquor ammonia, an 24 ounces of spirit of wine; mix these in an open vessel, and allow them to stand, stirring frequently, until the ink attains the desired blackness. This ink will not corrode steel pens. (*Chemical News*.)

PHTHISIS CONTAGIOUS. Two wards in this hospital—the Santissima Salvatore—are devoted to cases of tuberculosis or pulmonary phthisis, the average age of the patients being apparently between twenty and thirty. As this disease is universally regarded here as *contagious*, they are never mixed up with persons labouring under other diseases, but have separate rooms or buildings assigned them. (*Dr. Lee*.)

CHEMICALS AND PHARMACEUTICALS. Exhibitors of chemical products are, of course, a numerous class; little is known of annatto or garancine manufactures, but they appear to be as distinct occupations as starch-making or colour-grinding; in all, the makers or vendors of chemical products are divisible into 108 different species. Medical and pharmaceutical processes furnish employment to twenty trades. Aquaria, botanical collections, and objects of natural history, are in a manner scientific toys; and their preparation gives employment to ten classes of tradesmen, who have undergone special training with this end in view. (*Report of Commissioners*.)

METHYLATED SPIRITS. One of the last Acts passed in the late session was to reduce the duty on rum. It recites that, by the Act 18th and 19th Victoria, cap. 38, spirit of wine was allowed to be methylated duty free; and that it is expedient to allow foreign and colonial rum to be methylated, on payment of reduced duty. Rum may now be "methylated" in the Customs warehouse; but the wood naphtha, or methytic alcohol, or other article to be mixed with the rum, is to be provided by the Inland Revenue Commissioners; and the mixture is to be denominated "methylated spirits", and such spirits may be exported.

THE NON-RESTRAINT SYSTEM. A Dr. Erlenmeyer writes as follows:—"Your system of entire non-restraint in the refusal of every patient likely to require restraint is the only practicable method. All other systems of non-restraint are founded in deception, error, or even vulgar imposture, with the view of gaining over the public. It is, as Neumann, to the ire of the editor of the *Journal of Mental Science*, says, merely an *English swindle*. A strait-jacket or a restraint-chair are a thousand times more humane than the abominations of the non-restraint system in that establishment where devilish wickedness reigns." (*Journal of Mental Science*.)

DR. WING'S EXCURSION TO LLANDUDNO. In June 1862, Dr. Wing removed thirty-five of the private patients of the Northampton Asylum to lodgings in Llandudno, in North Wales, for change of air. "This trip was undertaken with the unanimous approbation of the committee of management, and received also the unqualified approval of the Commissioners in Lunacy. All returned home without a single accident of the most trifling character, and without any circumstance whatever having occurred to cause a regret that the project had been set on foot and carried out; nor was the conduct of any such as to give reasonable ground of complaint to the most fastidious. When the scale upon which this expedition was arranged is considered, as also the distance of Northampton from the sea-board, and the many miles between that town and Llandudno, it deserves to be reckoned a great success, and an advance in the treatment of the insane." *The Report of the Medical Superintendent of the Northampton General Lunatic Asylum, 31st December, 1862. (Journal of Mental Science.)*

GARIBALDI. Dr. Albanese, in a letter to Professor Zanetti, says that Garibaldi's wound is cicatrised; that during his convalescence, which lasted a hundred days—that is to say, from the latter part of March, when the last splinter of bone was extracted, to July 10th—the cure was retarded by two attacks of articular rheumatism; but this was conquered by vapour baths, cold douches, and medicine. The foot at the moment when the wound healed was very stiff, had scarcely any power of movement, and there was danger of ankylosis. Cold douches were repeated three or four times a day, and slight mercurial frictions were resorted to with considerable success. In certain directions, however, the movements of the foot are still difficult. Dr. Albanese advises mineral baths, sulphureous and ferruginous, or mud baths, such as there are at Dax, in the department of the Landes, and in some other places. But as Garibaldi refuses to leave Caprera, he is to use artificial mineral baths and local mercurial frictions.

ACTION FOR LIBEL AT LIVERPOOL. The plaintiff, the Rev. J. S. Padley, sought to recover damages from Mr. H. R. Cooper, a surgeon of Ixworth. Captain Baddeley, an Indian officer, went to reside with the Padleys, and, when he died, bequeathed all his property to the plaintiff. On this the defendant, a relative of the Baddeleys, applied to the coroner to have the body of Captain Baddeley exhumed, alleging that he had been poisoned. The coroner, after making inquiries from the police, refused to hold an inquest. The defendant then addressed the Secretary of State in several memorials, to the effect that Captain Baddeley had died from neglect at the hands of the Padleys. He also addressed communications to the *Bury Post*, *Stamford Mercury*, and other papers, reflecting upon the plaintiff. After the case had proceeded some length, Mr. James said that his client was ready to express his regret for publishing them. His lordship remarked, that the apology came very late. Mr. Temple, for the plaintiff, said that, as the action had not been brought for the sake of damages, a verdict would be taken for £150. A verdict was, therefore, entered for this amount.

CASUALTIES IN THE UNITED STATES ARMY. Assistant-Surgeon R. L. Braden, U.S.V., has become insane, and been committed to the Government Asylum for the Insane, at Washington, D.C.—Assistant-Surgeon W. G. Moore, 61st Ohio Vols., was mortally wounded while attending to his duties in rear of his regiment at the battle of Gettysburg, July 3, 1863, by a cannon-ball, which took effect in his left thigh, lacerating and contusing it extensively from the gluteal region to the knee. The femur was not broken nor the femoral artery divided. Reaction, however, did not succeed the severe shock, and he died on July 6th, the whole limb being in a state

of mortification or gangrene, which extended to the gluteal, scrotal, and iliac regions.—Surgeon Thurm, who has been sick in the General Hospital, at Fairfax Seminary, Va., for some weeks past, has returned to the Army of the Potomac.—By command of the President, Assistant-Surgeon Charles Woodward, 26th Illinois Vols., has been dismissed the service of the United States for uttering disloyal sentiments.—Surgeon William Arnold, 37th Ohio Vols., is hereby mustered out of the service of the United States, to date January 6th, 1863, the date of his muster in, he having rendered no service to the government.—Assistant-Surgeon E. B. Zule, 2nd Iowa Cavalry, is hereby discharged the service of the United States, on account of incompetency.—The following officer, having tendered his resignation, is hereby honourably discharged the service of the United States on account of physical disability. Surgeon W. T. Black, 1st Louisiana Vols., upon condition that he receives no final pay, until he furnishes evidence of service from January 1st, 1863, to the present day, no rolls of this regiment having been received at this office since December 1862.

VACANCIES. The following appointments are vacant: House-surgeon to the Ardwick and Ancoats Dispensary, Manchester; resident medical officer to the Leeds Fever Hospital; assistant house-surgeon to the Sheffield Public Hospital; junior house-surgeon to the Preston Dispensary; medical officer for the Tregynon district of the Newtown and Llanidloes Union, Montgomeryshire; medical officer for the Bangor Dispensary district of the Belmullet Union, Mayo; medical officer for the Askeaton Dispensary district of the Rathkeale Union, Limerick.

CALIFORNIAN MIDWIFERY. The treatment of the parturient female by the several tribes of Indians which inhabit the frontier north of California, known as the Indian Reservation, is as follows:—During the incipient stage of labour, she shuts herself up alone; when this period passes, and the labour proper is ushered in, she calls for help, when from four to six females rush to her relief. It may be remarked that these assistants had been previously selected by herself. One of these women acts as midwife, and her orders are implicitly obeyed, in a manner which would be well worthy of imitation by those more enlightened. During the labour, the woman sits upon the ground, and, as her pains return, four of her aids lift her up, and then forcibly thrust her back to the earth again. This process is continued until near the close of her labour; as soon as the head of the child has been delivered, it is seized by the midwife, who then carefully aids the mother in its expulsion. When the child is born, the midwife removes, without delay, the placenta; the mother now remains quiet, for fifteen or twenty minutes, when she goes to the nearest spring or pool of water, in which she bathes herself thoroughly. She is next caused to undergo a species of steam-bath, which is prepared by digging a hole in the earth, in which are placed hot stones, which are covered with sticks, over which are placed herbs; next water is poured upon the stones, the patient, meanwhile, being placed over them in such a manner as to be exposed to the vapour thus generated; she is exposed to this medicated vapour bath, wrapped in blankets, for half a day, and thus returns to her hut, from which I have often seen her come forth, in two or three days afterwards, in comparatively good health, and resume her ordinary avocations. The new-born child is seldom washed, but it is wiped, and wrapped tightly in its blanket, and then placed in a willow basket, of such form as to neatly fit the babe, an opening being left for the face, but over this opening a lid is placed, and kept close for a few days. In this basket the child is borne upon the mother's back, until it is five or six months old; it is, no doubt, owing to this mode of being carried, that the exemption of the Indian race from spinal curvature is due. (*San Fran. Med. Press.*)

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. THOMAS'S HOSPITAL.

CASE OF DIABETES TREATED BY THE USE OF THE
TURKISH BATH.

By R. H. GOOLDEN, M.D., Physician to the Hospital.

WM. SPENCE, aged 21, farm-labourer, was admitted into Luke's Ward, on February 10th, 1863. He had been ill five months, from his own account. He complained of great and increasing debility, so that he was obliged to give up work, becoming very much emaciated, and having intense thirst. The skin was dry and harsh. He passed large quantities of urine. He had good appetite; no cough. The chest was well developed and healthy. Pulse 84, feeble. The tongue was coated with dirty mucus, brown in the centre, and very red at the apex and edges. He had no headache; no recollection of a blow on the head or accident; nor had he suffered from other illness.

The emaciation and debility were excessive, so that he appeared to take little notice of what was passing about him; and roused himself with difficulty to answer questions. The specific gravity of the urine was 1041; the quantity as yet was not determined.

On admission, he had a warm bath; and his hair was cut close. He was ordered five grains of calomel and five grains of Dover's powder at night, and a senna draught in the morning; a drachm of sulphate of magnesia in peppermint-water three times a day. The urine, being measured, was found to be thirteen pints.

Feb. 21st. The quantity of urine was fifteen pints; specific gravity, 1043. He left off his medicine, and was ordered a Turkish bath on alternate days.

Feb. 25th. The amount of urine was ten pints; specific gravity, 1041. The diet of this patient was determined at this date as follows:—Mixed diet—Twelve ounces of bread, and three-fourths of an ounce of butter; one pint of tea with milk (no sugar) for breakfast; and the same for tea; milk, with rice- or bread-pudding. Alternately for dinner—Half-pints of milk; four ounces of roast meat when dressed, without bone. Extras—Greens; half a pound of beefsteak; a pint of porter; two eggs; and an unlimited supply of water, lemonade, and other hospital drinks.

March 4th. Urine of specific gravity, 1040; quantity under ten pints.

March 11th. Urine of specific gravity, 1037; quantity under ten pints. He was very much more alive and cheerful, and increasing in strength.

March 14th. Urine of specific gravity, 1030; quantity under ten pints.

March 21st. Urine of specific gravity, 1037; quantity under nine pints.

April 1st. Urine of specific gravity, 1027; quantity under eight pints.

April 4th. Urine of specific gravity, 1030; quantity under seven pints.

The specific gravity was less after coming from the bath.

April 8th. Urine of specific gravity, 1031; quantity under seven pints and a half.

April 18th. Urine—specific gravity of two portions, taken at different times in the day, 1041 and 1030; total

quantity, under seven pints and a half. He had been taking some sweetmeats, which accounted for the higher specific gravity.

April 25th. Urine of specific gravity, 1030; quantity under seven pints.

May 6th. Urine of specific gravity, 1030; quantity under six pints.

May 13th. Urine of specific gravity, 1031; quantity under five pints and a half.

The bath was omitted.

May 20th. Urine of specific gravity, 1032; quantity under six pints.

May 30th. Urine of specific gravity, 1032; quantity under six pints.

June 3rd. Urine of specific gravity, 1035; quantity under five pints.

The bath was now resumed.

June 6th. Urine of specific gravity, 1030; quantity under five pints.

June 13th. Urine of specific gravity, 1030; quantity under five pints.

The pepsine was discontinued.

June 27th. Urine of specific gravity, 1031; quantity under five pints.

July 1st. Urine of specific gravity, 1028; quantity under five pints.

July 15th. Urine of specific gravity, 1030; quantity under five pints.

July 18th. Urine of specific gravity, 1028; quantity under five pints.

Gluten-bread was ordered as a substitute for hospital bread.

July 22nd. Urine of specific gravity, 1033; quantity under five pints.

July 29th. Urine of specific gravity, 1035; quantity under five pints.

Since taking the gluten-bread, he has suffered much dyspepsia; and shows more sugar in urine.

I will not offer any remarks upon this case, beyond the fact that it is uncomplicated with remedies. Although not cured, and still under treatment, it shows that, in this particular instance at least, the bath is as powerful a remedial agent as any that we have tried.

The sweat has been several times tested, and there is not a trace of sugar in it; but the usual quantity of urea and chloride of sodium; differing not at all from the results given in the perspiration of healthy persons.

The skin has become soft and perspiring. He has increased in weight and muscular development; so that he has become capable of doing good work, and makes himself useful in the hospital. He is a very cheerful and intelligent man for his station; in strong contrast to his first appearance.

I was induced to try the Turkish bath in this, which I considered a hopeless case, because I had heard of a case (not very well authenticated) which had been relieved at one of the public baths. I was satisfied that, with proper care, very debilitated patients may be subjected to it without any fear; and having the patients under our own control, we could stop them at any time. And, moreover, a number of cases (seven) of albuminuria with dropsy, and in some cases with heart-disease, have been subjected to the Turkish bath; without any inconvenience in any one case. Four of these cases have got entirely rid of albumen in the urine. All the cases have been relieved of the dropsy. When I have other cases of diabetes in the hospital (and I shall be glad to receive any, if sent from any part of the country by medical practitioners) I will report progress.

Since the above report, the quantity is reduced to four pints, and specific gravity from 1022 to 1030; and this improvement followed the application of ice to the cervical vertebra in an India-rubber bag, as suggested by Dr. Chapman.

WESTMINSTER HOSPITAL.

CASE OF SEVERE INJURY TO THE ABDOMEN: RECOVERY.

Under the care of CHRISTOPHER HEATH, Esq.

[Reported by MR. HORRIDGE, House-Surgeon.]

CORNELIUS H., aged 9, was brought into the Westminster Hospital at 11 A.M. on August 15th, having been just run over by a cab. The boy was in a state of collapse; the pulse hardly perceptible; the skin cold and bedewed with cold sweat. The wheel of the cab had passed obliquely across the lower ribs of the right side and over the abdomen, leaving a mark on the ribs, but none on the abdominal wall. The patient was wrapped in blankets, and a hot bottle was put to his feet. A small quantity of hot wine and water was administered. Under this treatment, the condition of the boy improved; but he complained of great pain in the abdomen. Mr. Heath ordered him to suck ice, and to have teaspoonful doses of brandy and water every hour. He was ordered to have five minims of liquor opii sedativus every six hours; and a linseed poultice was applied to the abdomen. At night the symptoms of collapse returned, the skin being again covered with perspiration, and the pulse scarcely perceptible. Warm applications were again applied with success; and the urine having been drawn off with a catheter (none having been passed all day), he had a tolerable night, though complaining much of pain in the abdomen.

August 16th. The boy was more comfortable this morning. Pulse 130, and very small. Respiration was very hurried, and performed almost entirely by the thoracic wall. The abdomen was very tense and tender. He vomited a quantity of bilious matter after having taken a small quantity of beef-tea. He vomited again at night, after having been given some tea contrary to orders. He was ordered beef-tea injections, with ten minims of liquor opii sedativus, every eight hours.

August 17th. Pulse 160; respiration 40. His condition was improved. The abdomen was not so tense. His urine was passed naturally; and he had a slight evacuation from the bowels, in which there was a tinge of blood. He was ordered to have a drachm of brandy and half an ounce of beef-tea every two hours; and the opiate injection twice in the day.

August 19th. Pulse 92. He had a quiet night. The belly was much less swollen. He was ordered to continue the brandy and beef-tea and the opium injections. At 7 P.M., he had an attack of intense pain in the abdomen, which, however, passed off.

August 20th. He had a good night. The abdominal wall was relaxed.

August 21st. He looked much better. The bowels were open naturally. He had no pain in the abdomen even on pressure. Pulse 80; respiration 30. He was ordered bread with beef-tea.

August 25th. He had complained for the last two days of being hungry; and as there were no symptoms of abdominal mischief, and the boy was able to get up, he was put on middle diet.

August 28th. He was discharged cured.

REMARKS. The foregoing case is of some interest as a record of recovery after an apparently severe injury. Mr. Heath remarked that, when he saw the patient on admission, the symptoms would have warranted the diagnosis of rupture of the liver with internal hæmorrhage, or the rupture of the stomach or intestine. It was remarkable that the symptoms of collapse recurred nearly twelve hours after the injury without apparent cause. The treatment was adopted on the supposition that possibly (if not probably) some intestine might be injured; and the patient was, therefore, put under the influence of opium, and the smallest quantities of nourishment were administered, and principally by the

rectum. The rapid recovery may be taken probably as a proof that the injury was really only a severe contusion, notwithstanding the gravity of the early symptoms.

ROYAL SOUTH HANTS INFIRMARY.

DISLOCATION OF THE LUMBAR SPINE.

Under the care of R. S. FOWLER, Esq., Senior Surgeon to the Infirmary.

[Reported by MR. HENRY APPLETON, Clinical Clerk.]

G. S., aged 25, farm-labourer, was admitted into the Infirmary at Southampton, August 8th, 1863. When first seen, he was insensible, but noisy and restless; his respiration was hurried and difficult, and face very livid; pulse 140; extremities cold. Warm water bottles were placed to his hands and feet; hot flannels to his chest; and brandy was administered directly.

On examination, several ribs were found to have been fractured on his left side; and the physical signs of pneumothorax were present. There was also a small lacerated wound of the perineum, about half an inch deep.

In the evening, he was sensible, but in great pain. He remembered slipping off the shafts of a cart he was driving at the time of the accident; and from the contusions above the left ilium and fracture of the ribs of that side, there was every reason to believe that the wheels of the vehicle must have gone over him.

August 9th. He had not yet passed any urine. A catheter was introduced, and about twenty-four ounces of natural coloured urine were drawn off. On being asked if he could move his legs, he did so freely. Respiration was still laboured—56 per minute; pulse 130. The fractured ribs were strapped up in the usual manner with some relief, and twenty-five minims of tincture of opium were given.

11 A.M. Mr. Fowler bled him to twelve ounces. This was followed by a sensible improvement in his breathing and pulse, and he was ordered a pill containing two grains of calomel and half a grain of powdered opium, with conserve of roses, every two hours until four pills were taken; and afterwards every three hours. Low diet was also ordered.

5 P.M. He died very suddenly, whilst taking his tea, exactly twenty-four hours after admission.

SECTIO CADAVERICIS, twelve hours after death. The livid appearance of the face was strongly marked. There were no other marks or contusions besides those already mentioned. On the left side, four ribs were found fractured at their posterior angles, with effusion of blood and laceration of the pleura and lung. His spine was found dislocated between the first and second lumbar vertebrae; the lower vertebra being thrown behind and to the left side of that above it. The cord, notwithstanding the pressure and complete dislocation to which it was subjected, was not severed.

The case is worthy of record, as showing that a patient may still have power over his lower extremities, though complete over-riding of the spine may occur from dislocation.

PETROLEUM. The existence of petroleum appears to have been brought to the notice of the white population in the middle of the last century by the Seneca Indians, who found it upon Oil Creek, a branch of the Alleghany, in Pennsylvania, and near the head of the Genesee River, in New York, and who used it for wounds and in religious ceremonies, and sold it under the name of Seneca oil. It was not until 1845 that it was known to exist to any large amount. Before the close of 1860 the number of wells and borings was estimated to be about 2,000. Since August 1861, the product has rapidly increased, and the present capacity of the wells is estimated at from 250,000 to 300,000 barrels per week.

Transactions of Branches.

MIDLAND BRANCH.

GUN-SHOT WOUND OF THE RIGHT WRIST-JOINT: REMOVAL OF THE LITTLE FINGER WITH ITS METACARPAL BONE, AND EXCISION OF MOST OF THE CARPAL BONES.

By WM. NEWMAN, M.D.Lond., St. Martin's, Stamford.

[Read at Derby, July 2nd, 1863.]

J. H., a healthy lad, aged 14, met with a severe injury to the right wrist on November 6th, 1856. He was carrying in his left hand a loaded single-barrelled gun. In passing through a hand-gate, his right hand was placed just over the muzzle; and at the same moment the trigger was caught by the lower bar of the gate. The piece was at once discharged.

I saw him within an hour after the accident. The integuments were thoroughly stripped from the lower third of the forearm on the ulnar half and palmar aspect. The ulnar nerve and artery were torn across, and lay visible in the wound. The lower end of the ulna was exposed, but not denuded of periosteum, and not detached from its connection with the radius. The flexor tendons were dislodged from their position, and turned *en masse* on to the ball of the thumb. The shot had evidently shattered most of the carpal bones. Loose irregular bits of bone could be felt with the finger quite across to the radial side of the articulation. The metacarpal bone of the little finger was comminuted throughout its lower two-thirds. There was no injury either of the radial artery or median nerve.

November 7th. Mr. Eaton of Ancaster met me in consultation. I determined to attempt to save a fairly useful hand, by excising the fractured bones. The lad was put under the influence of chloroform; and I made a first incision on the outside along the whole length of the fifth metacarpal bone; then dissected out the smashed metacarpal bone, and removed the little finger. Having done this, I could reach easily enough the damaged bones of the carpus. These were removed, leaving untouched only the trapezium, trapezoid, and a part of the scaphoid; but so thoroughly had the bones been penetrated and fractured by the charge of small shot, that it was difficult even on after examination to make out the exact injury. The bleeding was of small moment; only two small branches needed a ligature.

November 9th. The wound looked dark and sloughy; still the boy was fairly well. He had some wine, and an opiate at night.

November 16th. The sloughs had nearly all cleared away, and granulations were fast springing up. His appetite was good; and the lad slept well.

November 29th. He was going on well. The hand was slowly being drawn over to the ulnar side. To obviate this, I got a tin splint made to fit the radial side of the forearm, from which a projecting piece was carried the full length of the fingers. To this the whole hand was daily bandaged; but the distortion, though checked, was not thoroughly prevented.

December 28th. The wound was now nearly healed. The hand was nearly as much drawn over to the ulnar side. The cicatrix was irregular and puckered. Some power had been regained over the fingers: within a certain limit, both flexion and extension were possible.

The after progress of the case was thoroughly satisfactory.

Two years subsequently (Jan. 1859), I had a cast taken of the hand; and the accompanying woodcut, taken from a photograph of the cast, represents very faithfully the then aspect of the limb. At the same

time, this note was made: "The lad is strong, healthy, and in daily active service with a farmer. He can write, carry a bucket empty or full, strike with the clenched fist even forcibly, use a whip; and, indeed, except from the altered direction, there is but little inconvenience from the mutilation of the hand."



I have since frequently seen him. The conditions remain as good as possible.

The above is a fair instance of successful conservative surgery. It may be worth the suggestion, that in some cases of disease of the carpal bones, a similar operation might be practised with advantage, even by including, for the sake of more free access, a partial mutilation in the removal of the little finger and its metacarpal bone.

The carpal bones have been removed usually by incisions dividing the extensor tendons. Mr. Butcher (*Dublin Quarterly Journal of Medical Science*, 1855 and 1859) divides those of the fingers; but leaves the extensor tendons of the thumb intact, with the result of a mobile thumb, apposed however to stiffened and immovable fingers. Such a condition would be avoided by the adoption of the lateral (ulnar side) incision.

[In the short discussion which followed this paper, Mr. Fearn, surgeon to the Derby General Infirmary, mentioned that in two cases he had successfully followed a very similar line of incision for the removal of diseased carpal bones.]

EAST ANGLIAN BRANCH.

CASE OF AMPUTATION OF THE LEG AND FOOT IN A CHILD TWENTY MONTHS OLD.

By C. B. RENDLE, Esq., Saxmundham.

[Read at Yarmouth, June 26th, 1863.]

I was summoned on June 2nd, by telegram, to see a little child, whose legs had been crushed by a railway truck. I found my medical friend, Mr. Packard of Leicester, with the patient, and we at once examined the extent of injury. The child was just twenty months old. We found that the truck had passed over the left leg a little below its upper third, completely crushing and separating it, the tibia being divided at that spot, while the fibula projected, bared of its coverings, for some two or three inches. The muscular tissue was severely la-

cerated, but the knee and the parts immediately below it were uninjured. The front of the right foot had been crushed, and almost entirely severed. There had been very little loss of blood; but the little child lay exhausted, and moaning, and with a very feeble pulse. After it had somewhat rallied by the aid of wine, I gave it chloroform; and, with the assistance of Mr. Packard, proceeded to amputate the shattered limbs.

I began with the right foot; and making an upper flap, I at first performed the ordinary Hey's operation—removing the foot at the tarso-metatarsal joint; but, finding that I could not save sufficient tissue to cover the bones fairly, I removed the three cuneiform bones and the anterior portion of the cuboid. We tied three vessels, but there was no hæmorrhage, as the child was so faint, that the pulse was hardly observable.

After the child had somewhat rallied by small doses of brandy, I proceeded to amputate the left leg a little above the injury, sawing through the bones, on a level with the tubercle of tibia, and retaining all available tissue to make the flaps. We tied three vessels, and then brought the flaps together in both stumps by sutures and a few straps of adhesive plaister, and then applied water dressing.

The child remained for some hours in a very faint and exhausted state, and I hardly expected that it would rally at all.

The next morning, I found the child with a very feeble frequent pulse, restless, and with a faint low moan. It had scarcely slept during the night, though it had taken a drachm and a half of tincture of opium since the operation. We intermitted the laudanum, and gave small doses of brandy in milk every hour.

On the following day (June 4th), the improvement in the child's appearance was very great. There was a good steady pulse, and a warm moist skin; and the child had slept well during the night. Both stumps were looking healthy. The water-dressing was re-applied. The brandy was to be given at less frequent intervals; and an opiate when the child was in pain.

I will not repeat the daily progress of the case; but at the end of the first week we found both stumps looking healthy. There was a tendency in the right foot to be pointed downwards from the action of the muscles of the calf, but this was easily obviated by bringing strips of plaister round the stump from behind forwards.

By the end of the second week, the healing had made great progress; union having taken place at either end of the right stump, from which the ligatures had come away, leaving a slight gap in the centre to be closed by granulations. A considerable portion of left stump has also cicatrised, but the ligatures remain.

By the end of the third week (June 23rd), the right foot is nearly healed, and forms an excellent stump; the left stump is still open at the outer angle, as two ligatures still remain; but the rest of the stump has almost entirely cicatrised, with a good cushion over the ends of the bones.

I have no doubt but that in a few days the recovery will be complete.

The case is remarkable from the very early age of the little patient; who, after it had recovered from the immediate effects of the accident, and the double amputation, suffered scarcely any constitutional disturbance during the repair of so extensive an injury.

OPENING OF A SCHOOL-CHURCH AT GOOLE. Last week, a new school-church at Goole in Yorkshire was opened with Divine service by the Archbishop of York. The incumbent of the parish, to whose exertions and liberality the building of the church is in a great measure due, is our excellent associate, the Rev. Dr. Bell. It is gratifying to observe him manifesting the same zeal for doing good in his sacred calling, as he has shown in his capacity of a member of the medical profession.

Reviews and Notices.

A MANUAL OF ZOOLOGY. By M. MILNE-EDWARDS. Translated from the last French Edition. By R. KNOX, M.D., F.R.S.E. Second Edition. With many Additional Observations, and illustrated by 572 highly finished Wood-Engravings. Edited by C. CARTER BLAKE, F.G.S., F.A.S.L. Pp. 564. London: 1863.

THIS volume is a translation of one of the Manuals of Natural History in ordinary use in France, under the sanction of the Council of Public Instruction. Its author, M. MILNE-EDWARDS, stands in the highest rank among European *savants*; and his translator, the late Dr. KNOX, was a man in every way competent and worthy to perform the duty of rendering the work accessible to the English reader. The present edition has been increased by about sixty pages; the increase being in part accounted for by the addition of nearly a hundred new engravings, whereby the value of the book, as a means of instruction, has been augmented.

While the reputation of the author and of the translator affords a guarantee of the scientific excellence of this manual, the simple attractive style in which it is written leads the student by a pleasant path to the acquisition of that knowledge which it is the object of the book to impart, and is calculated to excite in him a permanent interest in the science of zoology.

The book commences with some preliminary ideas on the objects and utility of Natural History; on the division of natural bodies into three kingdoms, and on the differences between these; and on the classification of the functions of animals.

The author then gives a History of the Principal Functions of Animals; describing, in simple language, the functions of Nutrition—including Absorption, Digestion, the Blood, Circulation, Respiration, Exhalation, Secretion, Assimilation and Nutritive Decomposition, and Animal Heat. He then describes the Functions of Relation, speaking of the Nervous System, of the Senses, of Movements, of the Voice, and of the Intelligence and of Instinct. When a function is described, an account is also given of the organs affecting it: thus, under the head of "Movements", we find a description of the vertebrate skeleton, and of the structure and action of muscles.

From these general matters the author proceeds to the Conformation, Classification, and Geographical Distribution of Animals. This part of the work occupies about 360 pages, and is profusely illustrated by drawings.

This is a book which ought not only to have a place in the private library of every intellectual man, but to be used as a text-book in our schools and colleges. It would seem that we are behind our French neighbours in the encouragement which we give to the diffusion of natural history knowledge among the public. Yet there is no branch of knowledge more elevating to the mind than that of the physiology and classification of the animal kingdom, and the observation of the gradual rise from the amorphous rhizopod up to man; the stream sometimes dividing in its upwards course—as in the mol-

lusca and articulata—and, it may be, again uniting, so that, although there be an ascent, it is not in one direct line. As the author eloquently observes,

"Insects can neither be placed before nor after the mollusks without violating some of the most evident zoological relations; and if we really desire to express by a figure the relationship of animals, it cannot be to a scale or ladder to which the animal kingdom is to be compared, but to a river, which, weak at its source, increases little by little as it approaches the sea, rolling not all its waters in the same bed, but dividing often into branches more or less numerous, sometimes reuniting after a longer or shorter course, sometimes remaining from that time forward distinct; or which at other times are lost in the sands and disappear for ever; or, surging up once more, reappear at some distance, to continue their route towards the common goal." (P. 197.)

We would, then, recommend our readers not only to study this book for themselves, but to recommend its perusal to their friends, of whatever profession they may be. One other reason for this recommendation they will readily appreciate; that the diffusion of the knowledge which the book contains must tend to produce a better understanding of the laws under which the functions of life are carried on, and a closer regard to these laws than is now often paid.

In conclusion, we must not omit to state that there is nothing in this volume which renders it unfit to be placed in the hands of readers of both sexes.

Progress of Medical Science.

DEVELOPMENT OF ASCARIS LUMBRICOIDES AND TRICHOCEPHALUS IN MAN. From researches which have been continued over several years, M. Davaine has found that the ova of *ascaris lumbricoides* and of *trichocephalus dispar* are expelled from the human intestines before arriving at maturity. Development ordinarily commences several months after expulsion; and the embryo remains for a long time enclosed in the shell of the ovum. In some ova which M. Davaine had kept during three years, the embryos were still alive.

Having ascertained that the embryos retained a latent vitality at a temperature below that of the human body, and that the ova are not capable of being dissolved in the gastric juice, M. Davaine was led to believe that the solution or softening of the shell was effected only by the action of the intestinal juices, and that the embryo could leave the ovum only at the ordinary temperature of mammalia. To determine whether these suppositions were true, he made the following experiments.

Some ova of lumbricus containing embryos, and some which had not yet undergone segmentation, were placed together in nearly equal number in very small bottles, which were closed with a piece of linen. These bottles were introduced into the stomach of a dog; and, on their being discharged two days afterwards in the fæces, their contents were carefully examined. The ova that had not undergone segmentation were still found; but those which had contained embryos had disappeared. Several embryos were free in the contents of the bottles. The experiment gave a similar result on being repeated. He hence concludes that the shell is not dissolved by the intestinal juices, since the non-segmented ova were found in the bottles after their discharge; but that it is sufficiently softened to allow the embryos, called into activity by the heat of the intestines, to penetrate it and escape.

In October 1861, some ova of lumbrici, which had

been preserved since October 1857, appeared to have undergone no alteration. M. Davaine gave three or four hundred of these ova to a cow one year old. When the animal was killed four months afterwards, no worms of any kind could, even by minute search, be found in the intestines. He does not conclude from this that the embryos were not alive, because other experiments indicate that they were; but that the *ascaris lumbricoides* of man is not developed in the cow. The *ascaris* of this animal he believes to be a distinct species from the *ascaris lumbricoides* of man, as well as from the *ascaris megalcephalus* of the horse and the *ascaris* of the pig.

On October 8th, 1862, M. Davaine carefully examined some ova of the lumbricus which had been kept since the same day of the month in 1857. In about one-third of the ova, the embryos had undergone a change; in the remainder, they were perfect. Having exposed some of these ova for several hours to a temperature of from 30° to 40° cent. (86° to 104° Fahr.), M. Davaine, on carefully crushing the shells of some, observed in several of the embryos movements, evidently of a vital character. He then made the following experiments.

A rat was kept fasting during twenty-four hours; and M. Davaine gave it some milk containing a large number of ova of *ascaris*, which had been kept five years. Twelve hours afterwards, the rat was killed. The milk was found in the whole intestinal canal, from the stomach to the cæcum. In the stomach and first half of the small intestine, the ova were found intact; in the second half, but almost exclusively at the end of the small intestine, he found live embryos which had escaped from the ova, and others which had only half escaped. Many of the ova were still entire. He ascertained distinctly that the ova are not dissolved: the embryos escape at one end, where he believes there is a small operculum.

The embryos which escape into the rat's intestines, being incapable of undergoing further development in that animal, are expelled with the fæces. A rat was fed for eight days exclusively on milk containing ova of the *ascaris lumbricoides*. The fæces, on being examined daily, were found to contain live embryos. It was also found that many ova were expelled before the embryos had escaped, or while they were escaping. This M. Davaine believes to depend on the comparative shortness of the animal's intestines, in consequence of which sufficient time is not afforded for the escape of all the embryos.

Similar experiments were made with some ova of *trichocephalus dispar*, which had also been kept five years. Having only a small number of these ova, M. Davaine found very few in the intestinal matter and in the fæces. He found no embryos free or in the act of escaping from the ovum; but careful examination left no doubt that those which remained in the ova were alive.

From the facts observed with regard to the *ascaris lumbricoides*, it is to be concluded that, if experiments were made with a large number of the ova of *trichocephalus dispar* on animals having a great length of intestine, the embryo of this worm might be detected in the act of escaping. It is, indeed, remarkable that the embryo of the *ascaris lumbricoides* does not escape in the stomach or upper part of the intestine in the rat, but in that part of the intestine which would correspond, in respect of distance traversed and duration of sojourn, which is the ordinary seat of lumbrici. In man, the normal seat of the *trichocephalus* is the end of the small intestine or the cæcum, where it may be supposed to be developed. In the rat, the intestine is too short to furnish a corresponding course; and this is, no doubt, the reason why the ova are found entire in the fæces of that animal.

The above mentioned facts show that the ova of the *ascaris lumbricoides* and *trichocephalus dispar* are developed externally to the human body, but that the em-

bryo escapes only when it is introduced into the intestines with the food or drink. Two conditions are doubtless necessary to the escape of the embryo—softening of the ovum in the intestinal juices; and the stimulation of the embryo into activity by a temperature of about 104° Fahr. Whatever be the animal that furnishes these conditions, the embryo escapes if it have had a sufficiently long sojourn in the intestines; but, if the animal be not that in which the ulterior development of the parasite naturally takes place, the embryo soon perishes and is discharged.

In the human lumbricus and trichocephalus, the duration of life in the embryo is at least five years: hence M. Davaine reiterates a remark which he made to the Academy of Sciences in 1858; that, during this long interval of time, the ova of these parasites may be carried by the rain into brooks, rivers, and wells, the water of which is used for drinking or in the preparation of food; and that in this way completely developed ova may be introduced into the human intestinal canal, where the embryos will escape and acquire their complete development. (*Gazette Médicale de Paris*, 27 Juin 1863.)

PULMONARY CONGESTION IN CHILDREN, SIMULATING THE EARLY STAGE OF PHTHISIS. In a lecture delivered at the Hôpital des Enfants Malades, M. Bouchut summed up his remarks in the following conclusions.

There are cases of chronic pulmonary congestion which perfectly resemble, in their physical signs, tubercle of the lungs in its first or crude stage. These congestions are asthenic, and are readily cured by the use of sulphureous waters; while true tuberculosis is much less amenable to this treatment.

Chronic pulmonary congestion is observed in children as well as in adults; it is the result of acute congestion, of bronchitis, of pneumonia either simple or attendant on measles, of rheumatic or herpetic bronchitis, or of pulmonary apoplexy which has not been entirely recovered from.

A kind of chronic pulmonary apoplexy, characterised by infiltration, destroying the pliability of the lung-tissue, and increasing its density, constitutes the anatomical condition of chronic pulmonary congestion.

Chronic pulmonary congestion may exist alone, and may remain so without the development of tubercle; on the other hand, it is tolerably often only the first phase of phthisis. In the same way as there are chronic hyperæmic states of the glands in children, which may or may not be followed by tubercle, so pulmonary congestion may be found to constitute the entire disease. Chronic pulmonary congestion must, however, always be looked on with suspicion, because it may be the origin of true phthisis.

Whatever be the nature of the induration of the lung—whether it be from congestion, exudation, apoplexy, or tubercle—its effect will be to partially arrest the blood-changes, by impeding the access of air to the pulmonary vesicles, and will produce the same physical signs.

Chronic pulmonary congestion, in scrofulous patients, necessarily leads to phthisis; in plethoric, rheumatic, and herpetic individuals, it remains in the congested or indurated state until resolution takes place.

Nothing has so great a resemblance as chronic pulmonary congestion to the first stage of phthisis; for the physical signs are alike, and the general symptoms are almost the same. The physical signs of chronic pulmonary congestion are, relative dulness of the chest; weakening of the vesicular murmur; prolonged expiratory murmur; some mucous rhonchi; and increased vocal resonance—signs generally held to be characteristic of crude tubercle in the lung. The general symptoms are cough, with or without expectoration; emaciation; and sometimes *malaise*, weakness, or a febrile state.

Chronic pulmonary congestion lasts from a few months

to several years; but recovery generally takes place, unless the affection become complicated with tubercle. Pulmonary tubercle is very rarely recovered from: most of the alleged cases of recovery have in reality been cases of pulmonary congestion. The disease is more readily recovered from in rheumatic and herpetic than in scrofulous subjects.

The treatment should consist of cod liver oil in the winter, and of quinine-wine and arseniate of soda in the summer; and the patient should be sent to the sea-side or to the country. (*Gazette des Hôpitaux*, 21 Juillet, 1863.)

A HITHERTO UNDESCRIBED CONJUNCTIVAL LESION ATTENDING NIGHT-BLINDNESS.* M. Bitot of Bourdeaux, in a communication to the Academy of Medicine, has called attention to what he believes to be a hitherto undescribed affection of the eye attending night-blindness, and consisting of an assemblage of glistening white points on the cornea, giving the appearance of a pearly or silvery spot. His observations were made on twenty-nine cases of night-blindness which came under his notice in the Foundling Hospital at Bourdeaux. Of these, 19 were males and 10 females. The night-blindness appeared between the ages of 9 and 17 in boys; between 10 and 19 in girls. The weakest children were free from it; it was most common in those who appeared to have the best constitutions.

The conjunctival lesion presents the following characters. It is always seated on the part of the eye which is exposed, during the waking state, to the action of the air. Its situation is generally to the outer side of the cornea; M. Bitot has never seen it above or below this membrane. It is readily distinguished by standing in front of the patient, and desiring him to direct the eye inwards. The spot is of a pearly silvery colour; it may be described as an aggregation of small points or delicate short lines. The colour varies little; but is more or less intense in different subjects, and according to the time when the spot is observed. When it is about to disappear, the whiteness loses its glistening appearance.

The form of the spot differs, not only in different subjects, but also even in the two eyes of the same individual. In general, it is triangular, with the apex turned outwards, and the base slightly concave, lying next the cornea. In some cases, it was circular or oval; in others, simply linear. Most usually, the particles composing it are agglomerated, so as to produce a dotted surface; sometimes they are disposed in parallel wavy lines, giving the spot an undulated or corrugated appearance. These forms may be modified by pressing on the eyelids with one or two fingers; and the change in form depends on the fact that the constituent parts of the spots do not appear to be connected, but simply in juxtaposition and capable of a certain amount of displacement.

The extent of the spot is in proportion to the intensity of the night-blindness. It was very large in two of M. Bitot's patients, who were absolutely incapable of distinguishing objects after sunset. It was never so large in persons who could see in the evening, although confusedly. At the commencement of the disease, the spots scarcely exist; they are represented by some pearly points, the first seat of which is always to the outer side of the cornea; these points multiply and extend as the night-blindness increases. In a general inspection of the eyes of the children of the hospital in 1861, M. Bitot found three in whom no affection of the sight was suspected, but who presented the spots in an early stage;

* We would suggest the use of the terms *night-blindness* and *day-blindness*, as the best means of avoiding the confusion arising from the different meanings which writers apply to *hemeralopia* and *nyctalopia*. In the present instance, M. Bitot uses *hemeralopia* to denote *night-blindness*.

he predicted that they would be affected with night-blindness, and the event soon confirmed his prediction.

The spots, which increase during the progress of the night-blindness, and even encroach on the intracorneal portion of the conjunctiva, decrease as soon as the sight becomes stronger; and the decrease is rapid or slow, in proportion as the recovery of the sight takes place quickly or only by insensible degrees. When the sight has regained its normal condition, not a vestige of the spots remains.

M. Bitot has examined into the question whether these spots may be mere coincidences with night-blindness, and be connected with scrofula. So far from this being the case, he has found that, although scrofula was very common among the children in the hospital, the general health of those who had night-blindness was generally very good—two only of the twenty-nine being scrofulous. On the other hand, among the numerous rickety and scrofulous children, none presented any appearance of the conjunctival spots; and M. Bitot is not aware that such a lesion has been described as connected with scrofula. In 1862, he examined the eyes of such of the night-blind patients of the preceding year as had not quitted the hospital; and in none of these was there any reappearance of the spots.

As to the nature of these spots, M. Bitot has found, by scraping them with the nail and by microscopic examination, that they are produced by a special desquamation of the epithelium of the conjunctiva. Around the spots, especially to the outer side and as far as the palpebral commissure, the conjunctiva of the bulb does not present its normal characters. It has lost its moisture, softness, and brilliancy; and resembles parchment. Pressure on the eyelids accurately determines the limit between the disordered and the healthy portions. (*Gazette Médicale de Paris*, 4 Juillet, 1863.)

SULPHATE OF COPPER IN PENCILS. The frequent employment of sulphate of copper as a caustic, and the inconvenient form of its crystals when used for this purpose, has suggested to a Spanish pharmacist, Don Mariano Llovet, to fuse it in pencils like nitrate of silver. The rapidity with which it loses its water of crystallisation interferes with changes in its form; it therefore requires to be mixed with some other substance which, producing no change in its caustic properties, allows it to take the desired shape. M. Llovet therefore used sulphate of alumina and potass (ordinary potass alum); mixing one part by weight of this salt with two of sulphate of copper. The two salts are powdered and placed in a clay or porcelain vessel over a spirit-lamp or any other sufficient source of heat, so as to be gradually melted together. The mass, when melted, is poured into a mould, which should be of bronze, so as to prevent the precipitation of metallic copper. The pencils obtained are of a clear bluish green colour both internally and externally, and offer some resistance to breaking. The caustic property of the sulphate of copper remains unimpaired. (*Union Médicale*; and *Gazette des Hôpitaux*, 28 Juillet, 1863.)

RED LINE ON THE GUMS IN PHTHISIS. This sign, the importance of which was insisted on by the late Dr. T. Thompson, has been investigated by Dr. J. Picard. He has found it present in thirty-five consumptive patients, in all stages of the disease; sometimes on both gums, sometimes on one only. In some cases, it extended along the whole length of the gum, while in others it was limited to one or two teeth; sometimes it was continuous, sometimes interrupted. The colour varied, being an intense red, or a violet or rose hue; sometimes scarcely deeper than that of the pallid gums themselves. In most instances, the line was level with the gum; sometimes it was raised; its breadth varied from one-hundredth to eight-hundredths of an inch. Some-

times there was a diffused ill-defined redness, which gradually shaded into the colour of the gum. In some patients, the red line disappeared as the disease advanced. In twelve cases, the gums were in so bad a state that it was impossible to arrive at any result from examination. The line was present in twelve doubtful cases of phthisis; and was absent in fourteen others. It was well marked in fifteen very healthy persons, who were free from cough, and regarding whom there was no reason for expecting that they would become phthisical. Dr. Picard observed the red line also in twenty cases of various diseases, especially typhoid fever. It is also strongly marked in persons who have been taking iodide of potassium or mercurials, or who have slight gingivitis from incrustation with tartar. Dr. Picard derives the following conclusions from his observations:—1. The red line is frequently present in pulmonary consumption, but has no semeiological value, since it is met with in non-phthisical persons, and is absent in some who are manifestly consumptive. 2. Instead of increasing with the evolution of the tubercular disease, the red line may disappear at an advanced stage of the malady. 3. The existence of the red line in persons in good health does not warrant the prediction that they will become consumptive. (*Gazette des Hôpitaux*, 4 Août, 1863.)

THE URINE IN TYPHOID FEVER. According to MM. Primavera and Prudente, absence of chlorides from the urine is a pathognomonic sign of typhoid fever. During the increase of the disease, or when it is about to end fatally, there is also a very considerable diminution of the phosphates and urates. When recovery commences, the phosphates are first rapidly increased; then the urates in like manner; and finally, the reappearance, though tardy, of the chlorides, shows that convalescence is fully established. (*Presse Méd. Belge*; and *Bull. Génér. de Thér.*, 30 Août 1863.)

British Medical Journal.

SATURDAY, SEPTEMBER 12th, 1863.

SCARLATINA EPIDEMICS.

THE medical press has few duties more important than that of calling the attention of the profession to the prevalence of epidemic diseases. It is by carefully watching the circumstances under which they arise and spread, that we can alone hope to obtain an insight into their causes, and thus to be enabled to mitigate or arrest their ravages. The public mind has lately been aroused by the unusual prevalence of one of the greatest scourges of humanity; viz., small-pox. But the still greater prevalence of another epidemic disease scarcely, if at all, less formidable than small-pox, has attracted comparatively little notice. Yet at the present moment the metropolis and many parts of England are visited by an epidemic of scarlet fever unequalled for many years. During the fifteen years 1847-1861 inclusive, the deaths from scarlatina and diphtheria*

* These two diseases are classed together, not from any belief in their identity, but from the circumstance that, prior to 1859, no distinction was made between them in the Official Returns of the Registrar-General.

in England and Wales amounted to 262,429, and in London alone to 38,890. In other words, one out of every twenty-three deaths occurring in London was due to scarlatina; and one out of every sixty-three of the population perished from scarlatina during the period in question. The smallest number (1169) occurred in the year 1850, and the largest (4767) in 1848. In the former year, one out of every forty-one deaths in the metropolis was due to scarlatina; in the latter, one out of every twelve. In the present year, the number of deaths in London from scarlatina and diphtheria, up to August 22nd, has been no less than 3330, and is weekly increasing; in August alone, it was 547. Of the total number of deaths occurring in London during the eight months (46,855), one in every fourteen has been due to scarlatina; and, according to this rate of mortality, about one in every thirty-five (instead of one in sixty-three) of the population would perish from scarlet fever in the course of fifteen years. When it is remembered that the next three months of the year are those in which scarlet fever has always been found to prevail most, it may safely be said that London is at present suffering from an epidemic more formidable than any which has been witnessed for upwards of twenty years, and probably surpassing even that of 1848. This great prevalence of scarlet fever, moreover, is not confined to the metropolis. The mortuary returns of Manchester, Leeds, Sunderland, Peterborough, Leicester, Plymouth, Stockport, and many other localities, tell a similar tale. Throughout the length and breadth of the land the disease is rife.

The above figures represent only the deaths from scarlet fever. Although no disease is subject to greater variations in the rate of mortality at different times and places, the gross mortality is probably about 7 per cent. Accepting this supposition, it follows that the number of cases in London during the last fifteen years has been 555,571, and during the first eight months of the present year has amounted to no less than 47,571. The reader, whose own family has been visited by the fell destroyer, can figure to himself the vast amount of human misery which these figures imply. Although not uncommonly the disease runs such a mild course that medical treatment is almost unnecessary, it is, on the other hand, but too true, that very many cases are amenable to no treatment whatever. Great strength of constitution avails nothing. The various vaunted specifics may be tried, but they will be resorted to in vain. They who publicly maintain that, under this or that line of treatment, they have never yet lost a case of scarlet fever, mislead the profession and the public, and show that they have had little experience of the disease in its more severe forms. Assertions of this nature are most unjust, and do great injury to the profession. The

unfortunate parent, bereft of his family, and hearing that this or that practitioner never loses a case of scarlet fever, is too apt to attribute the deaths of his children to his own medical attendant not having had recourse to the infallible specific.

It is plain, then, that if we wish to arrest the ravages of scarlet fever, we must look to prevention rather than to cure. In the whole range of medicine there is no subject more deserving of investigation, or which promises more rich and beneficent results, than the etiology of scarlet fever. There can be no doubt that, in the vast majority of cases, the disease is traceable to contagion; but no satisfactory effort has yet been made to ascertain from what part of the body of the patient the poison comes. We have no data for determining whether it be given off by the skin, by the mucous membrane of the throat and nose, or by the lungs. A few experiments made many years ago tend to show that the disease cannot be produced by inoculation of the blood of the infected, but they are far from conclusive. It is not unreasonable to hope that an inquiry into the precise source of the poison, and into the possibility of exciting the disease in a modified form in man or the lower animals, might lead to results not inferior to those which have accrued from vaccination. The investigation would undoubtedly be attended by many difficulties; but the reward would be great—an immortal name, and the well-earned gratitude of posterity.

Other questions which merit inquiry are, the influence of different meteorological conditions on the prevalence of scarlet fever, the laws which appear to regulate the rise and fall of great epidemics, and the possibility of the poison having a spontaneous origin. The last is a question which must not be put aside by bold theoretical generalisations, but can only be definitely settled by a careful observation of facts. Although scarlet fever differs from certain other diseases, which owe their origin to a specific poison, in the circumstance that the cases, where the poison cannot be traced to a person previously infected, are more exceptional, it is possible that the poison may occasionally be developed independently, in like manner as certain observers maintain, with some show of reason, that the poison of enteric fever is more commonly developed. Measles is a disease the poison of which, like that of scarlet fever, is generally believed to be of necessity derived from an infected individual; but the recent observations of Dr. Salisbury of Ohio, and of Dr. Henry Kennedy of Dublin, render it extremely probable that even measles may sometimes have an independent origin. As yet, however, we know of no cause capable of generating the poison of scarlet fever. There is no evidence that defective drainage or other sanitary defects can produce scarlet fever, although there is good reason for believing that such causes may in-

tensify the disease and cause it to assume a typhoid character. One well-established point, in connexion with the mode of prevalence of scarlet fever, however, deserves notice; and that is the circumstance that, whether epidemic or not, it rages most during the autumn, or from the middle of September to the middle of November. This fact, whatever be its explanation, has been alluded to by almost every writer since the time of Cullen, and is abundantly elucidated by the returns of the Registrar-General for the last twenty years. Careful investigation, however, has shown that the influence of season cannot yet be traced to any particular meteorological condition. The prevalence of the disease, indeed, appears to be unmodified by temperature, barometric pressure, or electric tension.

Inasmuch as an equivalent to vaccination is still a desideratum in the case of scarlatina, and we know not the external conditions on which its varying prevalence depends, and whether or not it is capable of independent development, our efforts to avert it must for the present be confined to such measures as are best calculated to prevent the propagation of the poison. The contagious character of scarlatina is so universally admitted, that it is needless to insist on the necessity for isolating infected individuals. Isolation, when practicable, is almost invariably resorted to. There are other circumstances, however, connected with the propagation of the poison of scarlatina, which are less generally admitted, and on the importance of which we would particularly insist.

In the first place: There is overwhelming evidence to prove that the poison of scarlet fever may attach itself to clothes and other objects; or, in other words, that it may be transmitted by means of *fomites*. Several unequivocal examples have come under our notice where medical men have been the vehicle of transmission of the poison to their own families or to their patients. There are even well authenticated instances where the poison has been transmitted to a long distance from the infected family by means of a letter. The stability of the poison is also surprising. It has been known to adhere to bedclothes and wearing apparel for many months, particularly if these articles have been shut up and not freely exposed to the atmosphere. A case has lately been communicated to us where a clergyman appears to have contracted scarlet fever from the hair of his deceased daughter months after her death. Facts such as these point to the necessity for subjecting the clothes of infected persons to heat and other disinfectants, and for painting and papering afresh the apartments which they have occupied, and also to the great impropriety of employing public vehicles for the conveyance of persons suffering from scarlet fever.

Secondly: There is little truth in the prevalent notion that children at the breast and under two

years of age are not liable to contract scarlet fever. From the mortality tables of the Registrar-General, it has been shown that, out of a total of 12,962 deaths from scarlet fever in children under five years of age, occurring in different parts of England from 1843 to 1847, no fewer than 1289 were under one year, while 2874 were over one and under two years. Not only is this so, but in a large proportion of cases at this early age, the disease is inevitably fatal.

Thirdly: Contrary to the opinion of some excellent authorities, one attack of scarlet fever does not confer absolute immunity from subsequent attacks. Not a few reliable instances are on record where persons have suffered from a second, or even from a third, attack of scarlet fever. During the present year, four examples of a second attack in the same individual, two of which were fatal, have come under our own notice.

This leads us, in the fourth place, to a most important point in reference to the propagation of scarlet fever. It is well known that adults protected by previous attacks, but exposed afresh to the poison are extremely liable to suffer from sore-throat attended by no eruption, and with little or no fever. It is less generally known, however, although no less true, that persons suffering from this sore-throat are capable of imparting scarlet fever in its most virulent form to unprotected persons. The sore-throat from which those persons suffer is, in fact, nothing more nor less than scarlet fever in a very modified form; and there can be no question that the most malignant forms of scarlet fever are often contracted by communication with cases of the mildest character. We are inclined to go even a step further. Adults repeatedly exposed to the poison of scarlet fever, whether protected by previous attacks or not, are liable to suffer from sore-throat from time to time on the occasions of such exposure. We have satisfactory evidence for believing, that in every such attack they are in a position to impart scarlatina to unprotected children with whom they are brought in contact. Moreover, it is very doubtful if these attacks of sore-throat without eruption confer any great immunity from subsequent attacks of ordinary scarlatina. This belief is founded on observations such as the following. Scarlet fever breaks out in a large family. Some of the children are attacked with the disease in a typical form; others suffer merely from slight sore-throat; while others present no symptom of the disease whatever. Those belonging to the third class are at once isolated and escape entirely; while they who suffer merely from sore-throat are allowed to communicate freely with those who have the eruption and other symptoms well developed. The result is that one of the children who at first suffered only from sore-throat, with slight fever, contracts typical scarlet fever and dies. This subject, however, and, indeed, the whole ques-

tion of the etiology of scarlet fever we earnestly commend to the attention of our professional brethren.

THE LIST OF MEMBERS.

THIS day's JOURNAL contains the List of Members, published annually in accordance with the laws of the Association. The list presents an increase of about one hundred above the number on the roll in June 1862.

This augmentation is satisfactory ; but it ought to be much greater. In order that the Association may carry out efficiently the work which it has before it, and give to the profession its proper weight as a scientific, social, and political body, it ought to embrace every honourable practitioner of medicine in the United Kingdom. Instead of numbering its two or three thousand members, it ought to number its ten, twelve, or fifteen thousand ; and we believe that this can be attained, if the right means be employed with energy and perseverance.

The increase of the Association depends, of course, in the first place, on the evidence which it can give of its disposition and power, so far as its present organisation allows, to carry out the objects for which it was founded. That such evidence is forthcoming, those who already belong to its ranks, and have observed how it has laboured in "the promotion of medical science, and the maintenance of the honour and interests of the medical profession", know well ; and surely nothing more can be required than to place such evidence fairly before those who have stood aloof from us, to induce them to join our ranks.

But exertion is necessary to raise the numerical strength of the Association to its proper standard ; and this exertion is capable of being made both by combinations and through official agency, and by individual members.

The establishment of Branches, by which the members residing in the various districts are enabled to enjoy the benefits of the Association, has always been a powerful means of drawing neighbouring practitioners into the ranks of the Parent Society. The frequent reports of the Branch meetings, which appear in our pages, show how, on almost every occasion, an addition is made to the number of members in the district where the meeting is held ; and a comparison of the number of names on the lists of several years ago, in various counties where Branches did not then exist, with the numbers that have appeared on the list in the same localities since the formation thereof of Branches, clearly demonstrates the benefit to the Association which arises from the cultivation of these offshoots of the parent tree. The highest credit is due to the officials of the Branches for the zeal with which they have endeavoured to impress on

their neighbours the value of such an organisation as ours ; and to their exertions, and to the attractions afforded by the meetings of these societies, must be ascribed very much of the increase in numbers which the Association has undergone.

We understand that it is intended to employ active measures for the formation of Branches of the Association in those localities in which they do not already exist. Nothing but success can be reasonably expected from such efforts, judiciously directed and perseveringly carried on ; for we are sure that practitioners who do not belong to the Association require only to be made aware of the satisfaction given by the proceedings of the Branches, to be induced to respond to the invitation given them to enter the ranks of these useful societies, and of the Association.

THE WEEK.

THE profession will, we are satisfied, again endorse the selection which Sir James Clark has made, in the appointment of Mr. Spencer Wells to the office of Surgeon to Her Majesty's Household. We are glad, indeed, to seize this occasion of remarking how deeply indebted to Sir James Clark we all are for the careful and judicious way in which he has ever acted in this matter of choice of Her Majesty's medical advisers. The task, though honourable, is evidently one of considerable difficulty, requiring great discrimination, and no doubt, in many cases, a sacrifice of personal feeling. The general expression of satisfaction which has been manifested by the profession at large, is a clear and certain proof that no man in the profession could have fulfilled the task more truly and honourably than Sir James Clark has done.

DR. DAUNT, who resides in the Brazils, writes as follows to the *Dublin Medical Press* of leprosy. His experience confirms the views given in the report just issued by the College of Physicians respecting the non-contagiousness of leprosy.

"What may be the origin of leprosy in Brazil? It is most singular that this disease, almost extinct in Europe, should rage in Brazil in a degree perhaps equal to that in which it existed in Europe in the middle ages. The circumstances are worse in which the lepers of the nineteenth century find themselves. For them, in this age of philanthropy and freemasonry, are wanting those noble institutions with which Catholic charity in the ages of faith covered Europe. Misery in its most cruel forms is the lot of these poor wretches. There are also no police regulations which limit the intercourse between the healthy and the lepers, so that contagion has no barriers except in the instinctive horror which the lepers inspire. There is much still to be learnt as to this disease, and especially as to its relations with disease of the nervous centres. Partial palsy and a wasting of some of the muscles are frequently present long before there is any skin-disease. The sentient nerves are chiefly affected. For some exquisitely just

notions of this malady, and on the light in which it was viewed in middle-age Europe, I refer the reader to Rev. Mr. Faber's beautiful poem of *Sir Launcelot*, which will amply repay perusal to all cultivated tastes."

BARON LIEBIG is at present engaged in proving, to his own satisfaction, at all events, through the pages of *MacMillan's Journal*, that Bacon was little better than an upper-class kind of charlatan.

WE believe that numerous powerful parties, who object to the Stangate site for the St. Thomas *in futuro*, intend if possible to persuade the Lord Chancellor to put his *veto* on that site. It must not, therefore, be concluded that, because St. Thomas's Governors and the Commissioners have agreed as to terms, etc., for the Stangate elevation, the matter is finally arranged. We should, of course, suppose that the wishes of the Governors will eventually carry the day with the Lord Chancellor.

THE number of the *Social Science Review* for the 5th inst., contains an excellent summary of the proceedings of the British Association at Newcastle. This journal is, we believe, edited by a talented and well known member of the medical profession.

SOME remarkable experiments have been lately made by M. Longet with a new apparatus for transfusion of blood. They were perfectly successful. A dog, weighing 11 kilos. 750 grammes, was fixed by the side of a dog which was to supply the blood. The femoral artery of the first dog was opened, and in about fifteen minutes he lost 815 grammes of blood; that is, all the blood which would flow out. The animal became anæmic, and had three syncope. He was recovered from two of them by cold water affusions, but not from the third attack. He was now completely exsanguineous; his mucous membranes had lost their colour; breathing had ceased; convulsions came on; and every one thought the animal was dead. In about eighty seconds after the occurrence of this apparent death, from 80 to 90 grammes of blood were thrown into his veins; and then the respiration was gradually re-established. The transfusion was continued up to 125 grammes; and, after ten minutes, 125 grammes were injected. So that the dog, which had lost 815 grammes, received 250 grammes of blood. The animal gradually recovered; and, after a short interval, he ran round the room. Eight days afterwards, the dog was quite well, and was used for a different experiment. The conclusions drawn from this fact are: that life is not immediately destroyed even by the most severe hæmorrhages; and that, by restoration of the blood, life may be preserved.

M. Gintrac thus expresses his conversion to the belief of the contagiousness of typhoid fever. "An

old pupil of the Parisian school, physician in a large town, for a long time attached to an extensive hospital, I had never observed a positive fact of the transmission of the fever, and I had little faith in the idea of its being contagious; but facts have since then passed under my eyes which have altered my views. I now conclude that, under certain circumstances which are not yet determined, typhoid fever is contagious."

M. Reybard of Lyons, who lately died at Paris after a few days illness, left 500 francs to the Medical Association, and 1000 francs to l'Hôpital d'Annonay. M. Reybard was engaged in some experiments at Paris, and was called upon to perform an operation at La Pitié on a patient having urinary fistula. He pricked himself during the operation; and the puncture was followed by purulent infection, which carried him off in five days. "He died", says the journal, "from a disease contracted in the practice of his profession, like a soldier on the field of battle."

M. Lami, through M. Dumas, tells the Academy of Sciences that thallium—one of the new bodies discovered through spectral analysis—has poisonous properties. A very small quantity suffices for the destruction of dogs, rabbits, and fowls. The chief symptoms are intestinal pains, tremblings, paralysis of lower extremities, and death. M. Lami was led to consider thallium a poison, in consequence of having experienced, during his preparation of it, symptoms which were new to him, and, amongst them, a remarkable feeling of weariness. Its presence in the body is readily shown. A portion of any part of the body poisoned by it, not bigger than a pea, is enough for the analyst. Its presence will be instantly disclosed by spectral analysis. We shall hear more of this, no doubt; for M. Lami has presented M. Bernard with a quantity of thallium for experiment—the Society for the Protection of Animals notwithstanding. We need hardly add, that thallium will be rapidly introduced into the practice of medicine. We shall now every day expect the announcement from some *confrère* of the wonderful "effects of thallium" in epilepsy or some other like incurable disease, with, of course, a list of cases distinctly illustrative of the statements and belief of the author.

"We learn from England," says the *Wien. Med. Woch.*, "that Professor Czermak's journey through Great Britain has been productive of great things. He has been received in London, Dublin, Edinburgh, and Glasgow, as the true discoverer of this new method—laryngoscopy, rhinoscopy, and local treatment by means of the reflector. His demonstrations were attended by the most illustrious members of the profession in those cities. This is one of those rare instances in which an Austrian surgeon has met with such a success in reserved England."

It is worthy of note, that at this very time, when the *Times* is endeavouring to write up the establishing of licensed houses of prostitution in this country as a means of diminishing the spread of syphilitic diseases, the *Vienna Medical Journal* is obliged to be engaged in defence of that system of things in Germany. That journal admits that the present system of regulation does not answer, and calls out for more stringent laws. The system is loudly attacked at this time in that country, on the score of its comparative inefficacy, and its injury to morality and religion.

L'Union Médicale suggests that the medical journalist should "close up" during the holidays. "Why should not we also have our month's holiday? Our subscribers rush off and care little for our prose. Our numbers are filled during their absence, as ever, with science and wit; and there they lie piled up on the table untouched."

Yellow fever has been the subject of a long and learned debate in the French Academy of Medicine. The main fact which has resulted from the discussion is the demonstration, through a searching examination of facts, of the infectious nature of the fever; and, of course, the practical conclusions resulting from such demonstration is the subjection of vessels and individuals who are visited with the fever to quarantine. One orator said that the vessels in question ought to be destroyed.

TREATMENT OF DROWNING.

THE following Rules have been just issued by the Royal Humane Society. They are stated to be "the result of the labours of the Committee of the Royal Medical and Chirurgical Society of London."

DIRECTIONS FOR RESTORING THE APPARENTLY DEAD.

I.—*If from Drowning or other Suffocation, or Narcotic Poisoning.* Send immediately for medical assistance, blankets, and dry clothing; but proceed to treat the patient instantly, securing as much fresh air as possible.

The points to be aimed at are: first, and immediately, the restoration of breathing; and, secondly, after breathing is restored, the promotion of warmth and circulation.

The efforts to restore life must be persevered in until the arrival of medical assistance, or until the pulse and breathing have ceased for at least an hour.

TREATMENT TO RESTORE NATURAL BREATHING.

Rule 1. *To Maintain a Free Entrance of Air into the Windpipe.* Cleanse the mouth and nostrils; open the mouth; draw forward the patient's tongue, and keep it forward; an elastic band over the tongue and under the chin will answer this purpose. Remove all tight clothing from about the neck and chest.

Rule 2. *To Adjust the Patient's Position.* Place the patient on his back on a flat surface, inclined a little from the feet upwards; raise and support the head and shoulders on a small firm cushion or folded article of dress placed under the shoulder-blade.

Rule 3. *To Imitate the Movements of Breathing.* Grasp the patient's arms just above the elbows, and

draw the arms gently and steadily upwards, until they meet above the head (this is for the purpose of drawing air into the lungs); and keep the arms in that position for two seconds. Then turn down the patient's arms, and press them gently and firmly for two seconds against the sides of the chest (this is with the object of pressing air out of the lungs. Pressure on the breast-bone will aid this.)

Repeat these measures alternately, deliberately, and perseveringly, fifteen times in a minutes, until a spontaneous effort to respire is perceived, immediately upon which cease to imitate the movements of breathing, and proceed to induce circulation and warmth (as below.)

Should a warm bath be procurable, the body may be placed in it up to the neck, continuing to imitate the movements of breathing. Raise the body in twenty seconds in a sitting position, and dash cold water against the chest and face, and pass ammonia under the nose. The patient should not be kept in the warm bath longer than five or six minutes.

Rule 4. *To Excite Inspiration.* During the employment of the above method excite the nostrils with snuff or smelling-salts, or tickle the throat with a feather. Rub the chest and face briskly, and dash cold and hot water alternately on them.

The above directions are chiefly Dr. H. R. Silvester's method of restoring the apparently dead or drowned, and have been approved by the Royal Medical and Chirurgical Society.

TREATMENT AFTER NATURAL BREATHING HAS BEEN RESTORED.

Rule 5. *To Induce Circulation and Warmth.* Wrap the patient in dry blankets, and commence rubbing the limbs upwards, firmly and energetically. The friction must be continued under the blankets or over the dry clothing.

Promote the warmth of the body by the application of hot flannels, bottles or bladders of hot water, heated bricks, etc., to the pit of the stomach, the arm-pits, between the thighs, and to the soles of the feet. Warm clothing may generally be obtained from bystanders.

On the restoration of life, when the power of swallowing has returned, a teaspoonful of warm water, small quantities of wine, warm brandy and water, or coffee, should be given. The patient should be kept in bed, and a disposition to sleep encouraged. During reaction large mustard plasters to the chest and below the shoulders will greatly relieve the distressed breathing.

II.—*If from Intense Cold.* Rub the body with snow, ice, or cold water. Restore warmth by slow degrees. In these accidents it is highly dangerous to apply heat too early.

III.—*If from Intoxication.* Lay the individual on his side on a bed with his head raised. The patient should be induced to vomit. Stimulants should be avoided.

IV.—*If from Apoplexy or from Sunstroke.* Cold should be applied to the head, which should be kept well raised. Tight clothing should be removed from the neck and chest. Stimulants should be avoided.

Appearances which Generally Indicate Death. There is no breathing or heart's action; the eyelids are generally half-closed; the pupils dilated; the jaws clenched; the fingers semi-contracted; the tongue appearing between the teeth, and the mouth and nostrils are covered with a frothy mucus. Coldness and pallor of surface increases.

PHARMACEUTICAL CONFERENCE. During the meeting of the British Association, a conference of pharmacologists was held. It is at present proposed to continue the conference at each of the British Association gatherings.

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THE General Secretary will feel obliged if members who may be incorrectly described in the list published in this day's JOURNAL, will forward to him the necessary corrections.

13, Newhall Street, Birmingham, Sept. 12th, 1863.

EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting will be held at the Ship Hotel, Dover, on Thursday, September 24th, at 3 P.M.

Dinner will be ordered for 5 P.M.

THOMAS BOYCOTT, M.D., *Hon. Secretary.*

Canterbury, September 7th, 1863.

Reports of Societies.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

ANNUAL MEETING.

[Held at Newcastle-on-Tyne, August 1863.]

The Anatomy of a Young Chimpanzee. By D. EMBLETON, M.D. On December 11th, 1862, the body of a male chimpanzee, said to be about one year and a half or two years old, which had died of bronchopneumonia in a menagerie at Newcastle, was purchased for the College of Medicine. It was scantily covered with black hair except around the muzzle and arms, where the hair was silvery grey. It was fresh and in good condition, the trunk rather bulky, the chest large, the arms strong and muscular, the hands partly covered on the back with black hair, which did not extend to the fingers; the palmar surface smooth, naked, and of a dusky flesh colour; the thumb small and short, measuring with its metacarpal bone two inches, the middle finger being five inches long. The legs were comparatively short and weak, but fleshy to the heels; the feet rather more covered on the dorsum with hair than the hand; the toes and the sole resembled in smoothness, absence of hair, and colour, the corresponding parts of the hands; the great toe was freely detached from the others, and resembling a strong thumb, measuring with its metatarsal bone two inches and a half; the third toe three inches and a half. The thumb appeared much shorter, slenderer, and weaker than the other fingers; the great toe thicker, stronger, and shorter than the other toes. The whole body weighed 16 lbs. 6 oz. avoirdupoise. There exist thirteen pairs of ribs, and therefore thirteen dorsal vertebrae; and the number of lumbar vertebrae is reduced to four. The diaphragm was well arched, and very strong; the psoas parvus muscle was present, and attached as in a man. The opponens pollicis muscle was wanting; the others appeared to be disposed as those of the human hand. Professor Huxley having maintained, in his *Man's Place in the Creation*, that the hind limb of the so-called *Quadrumanus* is not a hand, but in reality a foot, it was necessary to direct particular attention to the muscles and tendons of that part. The posterior region of the leg is flat, and rather broad, and the fleshy parts of the lateral muscles are continued down to the ancles; the gastrocnemii are the principal feature hiding the presence of the soleus, and the plantaris is absent. The peroneus brevis, which

is inserted into the fifth metatarsal bone, arises above the peroneus longus; the tendon of which, passing behind the outer ancle, runs obliquely into the sole of the foot. Next internal to the peronii lies the rather slender extensor longus digitorum, the four tendons of which pass to the four outer toes. Between this muscle and the edge of the tibia lie three muscles, one being a good deal overlapped by the other two. These two send their tendons to be inserted, the *inner* into the inner side and under part of the first cuneiform bone; the *outer* into the base of the metatarsal bone of the great toe. The third muscle, at first deeply placed, comes out, a little above the ancle, from beneath the other two; and its tendon, lying between that of the outer of the two and the tendon of the long extensors, runs to be inserted upon the dorsal surface of the base of the first phalanx of the great toe. On the dorsum of the foot, to the short extensor of the toes, a broader muscle, and extending further towards the inner side of the foot, than in man, by means of a considerable superadded slip, which diverges abruptly inwards from the other part of the muscle, and is inserted into the base of the second or terminal phalanx of the great toe.

Every toe then, in the chimpanzee, has, at least a long and short extensor for its phalanges, whilst the great toe has an extensor for its metatarsal, another for its cuneiform bone. Thus it may be said that there are four muscles of the great toe to ensure free and varied mobility in the sense of extension; the fifth toe has, as in man, in addition to its phalangeal extensions, the peroneus brevis attached to its metatarsal. Of the four extensions of the great toe the two innermost appear to represent the tibialis anticus of human anatomy, divided to secure variety of motions in the root of the great toe; the next would quite answer to the extensor proprius pollicis only, it is inserted into the base of the first instead of the terminal phalanx; the fourth or short extensor is a new foot-muscle, unrepresented in either the hand or foot of man.

In the sole of the foot the three superficial muscles, the abductor pollicis, the flexor brevis digitorum, and the abductor minimi digiti, are, as in the human sole, the first to come into view. On detaching the last two from the heel-bone, we find, towards the outer border of the foot, a flexor brevis minimi digiti, and in the middle region the lumbricales and the tendons of the long and short flexors of the toes, with a small muscle accessory to the lumbricales arising from the long flexor tendon before its division. No musculus accessorius arising from the os calcis and attached to the long flexor tendon was observed. At the outer border of the foot, on abducting strongly the great toe, which can thus be brought to nearly a right angle with the rest of the foot, the abductor pollicis is seen as a short muscle, extending from the heel to the base of the first phalanx of the great toe; and close to it lie the two halves of the flexor brevis pollicis, separated by the tendon of the flexor longus pollicis. Between the great toe and the second is the adductor pollicis. All these muscles of the great toe are highly developed and of great power; and if they all act together will very forcibly pull the great toe towards the middle of the sole of the foot; if the flexors of the other toes are made to act at the same time the result will be a strong, rather oblique opposition of the great toe to the other four toes; and if an object like the branch of a tree be placed in the sole, it will be grasped with much firmness. There remains, however, to be noticed an interesting arrangement by which that action will be enforced and made more secure. The muscle called flexor longus pollicis is largely developed in the leg, extending down to the inner ancle, and ends in a strong tendon which runs into the sole of the foot close to the os calcis, and apart, as in man, from the other tendons. Opposite to the foot of the great toe, it divides into two slips; one, the lesser, runs outwards at a certain angle, being con-

fined at first under a strong ligament, as under a pulley, to the great toe; the other, the larger division of the tendon, passes straight onward to the other toes, supplying each with an additional tendon. When this muscle is put in action, it will necessarily draw the great toe and the other four toes together simultaneously, towards the middle of the sole. This addition of a fourth set of flexor tendons for the four outer toes, and with it a distinct provision for the simultaneous action of those toes with the first, is very remarkable, and seems to complete the foot of the chimpanzee as a perfect instrument of prehension.

The additions to the ordinary mechanism of the human foot that have here been noticed, are not, so to speak, borrowed from the hand, but are either extensions of the plan of the foot, or new parts that occur neither in the hands nor in the foot of man.

The function of prehension by the foot, as is well known, is one enjoyed, not only by apes and monkeys, but by many other animals; the parrots, cockatoos, and other birds, and the chameleon, to cite familiar examples, have prehensile feet; it is attached to the nasal organ in the tapirs and elephants, to the lips in the giraffes, horses, etc., and to the opposite or caudal end of the spine in certain monkeys and marsupials. Prehension, therefore, cannot be taken in the characteristic function of the hand, of the higher animals.

The tongue, broad, fleshy, soft, and delicate, much resembled the tongue of a child. The milk-teeth, twenty in number, somewhat blackened, were all present. The total length of the alimentary canal was fifteen feet ten inches, or about six and a half times the length of the body.

The oesophagus was somewhat narrow; the stomach was shorter and more globular than in man; the left end, or cul-de-sac well defined; the pyloric extremity funnel-shaped and abruptly bent back towards the cardia, which it nearly touched, was slightly marked off at the bend by a constriction, and there were two other smaller constrictions between this part and the duodenum. The peritoneum appeared to be disposed very much on the human model.

The liver, with the gall-bladder, all the parts at the transverse fissure being cut close off, weighed ten ounces and a half. Its vessels and membranes resembled those of a child. It was divided into two great lobes, right and left; and each of these had a small rather detached lobule situated behind the transverse fissure, and bordering on the fissure of the vena cava. The spleen was rather thin, longish, and notched on its anterior border. The suprarenal glands were long and of a yellow colour, contrasting with the kidneys, which were brown and also unlobulated.

The vault of the cranium having been removed, casts in plaster were at once taken of the inner surface of the bone; of the brain covered by the dura mater; and after the brain was removed, of the cerebral surface of the base of the skull. Before the brain was in any way disturbed from its natural position, the relation of the posterior lobes of the cerebrum to the cerebellum was carefully observed; the former projected backwards over the latter a quarter of an inch. The circle of Willis was quite human. The entire encephalon, with arachnoid and pia mater, vessels and nerves attached, and as much of the spinal cord as could well be reached by an ordinary scalpel, was carefully removed, and its weight was found to be 13 oz. and 6 drachms; which is to the weight of the whole body nearly as one is to nineteen. The three great lobes of each cerebral hemisphere were well developed; the two anterior lobes formed together a blunt projection forwards, and their under surfaces were distinctly concave; the middle lobes were more prominent downwards than in man; and the projection of the posterior lobes backwards overlapped the cerebellum. The convolutions of the cerebral hemispheres were numerous,

somewhat intricate, and partially symmetrical. Two main sulci, traceable from the Sylvian fissure, the other from the base at the back of the crura cerebri, appeared to mark out, even on the top of the hemispheres, the division into anterior, middle, and posterior lobes, or masses of convolutions. The island of Reil in the fissure of Sylvius was quite evident, with three small convolutions. The corpus callosum showed, as in man, distinct though minute transverse markings, and a longitudinal raphe formed of two slightly raised lines and an intervening groove. A section of the right hemisphere to expose the lateral ventricle, showed as bold and as numerous projections of the external sulci into the white centrum ovale as are commonly seen in the human cerebrum. The ventricle itself was beautifully distinct; its anterior cornu curving boldly outwards in front of the striated body; its middle cornu winding outwards and downwards to the very bottom of the large middle lobe, and containing the hippocampus major and the corpus fimbriatum; and the choroid plexus and its posterior cornu extending in an ample curve backwards and inwards, so as almost to touch the grey matter of the surface next the median line, and having within it the hippocampus minor. On the floor of the body of the ventricle were the corpora striata, the tænia semicircularis and the free edge of the fornix, with the choroid plexus; these last lay on the velum interpositum, which covered the third ventricle and the optic thalami, quite as in man. Further investigation in this direction was forborne, as it was thought desirable to preserve, for the present occasion, the parts already enumerated. The fourth ventricle was closed behind, and had its small choroid plexus after the human pattern; a second similar, but smaller, plexus existed on each side, just outside of the ventricle, and attached to the cerebellum. The point of the calamus scriptorius was well defined, but no white lines of origin of the auditory nerve were distinguished; on the side of the medulla oblongata, the usual nerves were met with, and the pyramids and olivary bodies were clearly to be seen, but they were not further examined. The cerebellum was laminated, and had the great human divisions; on examining that part which overhangs the medulla oblongata, the inferior vermiform process, and other parts enumerated in human anatomy, could, without difficulty, be dissected out; the superior vermiform process, also, was evident on raising up carefully the posterior lobes of the brain.

The conclusions arrived at in this investigation were those which have already been made public by Professor Huxley; 1. The chimpanzee is not, properly speaking, quadrumanous, but possesses four prehensile extremities, two hands, namely, and two feet; and, 2. The brain of the chimpanzee differs from the brain of the man only in size and weight, therefore, in the smaller size and extent of its cerebral convolutions, the same parts without exception exist in both brains. Whether the cerebral matter of the ape differs from that of man in microscopic characters, or how otherwise it may differ, are problems yet to be worked out.

The Eggs of Birds. By JOHN DAVY, M.D. F.R.S. The author, after pointing out certain qualities of resemblance common to the eggs of different kinds of birds, such as, especially, the alkaline nature of the albumen, and the acid of the yolk, and that the two are in opposite electrical conditions, described the results of the experiments he had made to endeavour to ascertain in what respect the eggs of different species differ. Some of the conclusions which his results seemed to warrant were the following.

1. The colour and markings of eggs are very various; the colouring matter is of an organic kind very similar to that of leaves and flowers, and in part depends on molecular arrangements.

2. The albumen in quantity greatly exceeds the yolk, but in eggs of different species in no regular manner,

whilst in all the quantity of solid matter in the yolk is proportionally much larger than in the white.

3. The temperature at which the coagulation of the albumen takes place varies in almost every instance; and the firmness of the coagulum does not appear to be regulated by the proportion of solid matter which the albumen yields in evaporation.

4. The coagulum of each has an aspect of its own, varying in different instances as to tint and degree of translucency, and in some varying in colour.

The author, taking into consideration the many sources of error to which experiments on eggs are surrounded, offered his results, and the conclusions from them, merely as approximations.

The Ventilation of Barracks. By STEWART CLARK, Esq. Dr. Embleton read a paper which set out by stating the general agreements as to the baneful influence of impure air on the human constitution, and the healthful and invigorating effect of living in a pure atmosphere. The Scotch Highlander is able to walk forty, fifty, and even sixty miles a day among his native hills on no better fare than a dish of porridge and a piece of oatmeal cake, and this chiefly in consequence of the change of air through which he is passing. The British soldier, recruited from the crowded city or the ill-ventilated workshop and dwelling-room, bears the fatigue and hardships of lengthened campaigns and long forced marches in the fresh air; but, taken direct from his so-called comfortable barracks, he is easily fatigued, hardly able to endure a march of ten miles, and a ready prey to cholera and other passing epidemics. Air vitiated by the exhalations of the human body and impure water may not be the sole causes of epidemic cholera, dysentery, and diarrhoea; but they are doubtless the principal; and the benefit derived during the visitation of these diseases, from the removal of the afflicted into camp where an unlimited supply of fresh air and pure water prevails, results chiefly from oxidation and removal of the foul-air poison. The continuation of the epidemic depends on the extent of the mischief done by the long continued inhalation of impure air and the restorative powers of the system. The necessity for pure air being thoroughly established, it had been truly urged by a late writer on the subject, "If fresh air will not go where we wish it we must drive it, and instead of trusting to languid currents created by indirect means for the ventilation of crowded apartments, it should be pumped in per force." All the barracks recently erected in India are well supplied with means for natural ventilation, still when occupied by the regulation number of men the air during night time is very impure. It has been shown that, in a tropical climate, natural ventilation will not proceed during certain atmospheric conditions; and, however well any apartment may be supplied with doors, windows, etc., no movement of the internal air will take place, sufficient to change the atmosphere. Therefore, ventilation by artificial means must be resorted to, otherwise the inmates must suffer. It is evident that, on account of the climate, the peculiar construction of suitable buildings renders ventilation by heat or vacuum impracticable; and therefore the "plenum" is the only method by which the ventilation under consideration can be accomplished. Fresh air forced into an apartment, may not, it is true, completely expel the foul; but, if openings for the ingress of the air be judiciously arranged, the greater part of it will be got rid of by the open doors and ventilators, and what remains will be so completely diluted that no harm will come of inhaling it.

Oil a Preventive of Plague. The oil-porters of the Levant are, it is said, never attacked by the plague; The theory, we suppose, being that the oleaginous state of their skin shuts out the cutaneous entrance of the poison.

Correspondence.

TREATMENT OF A POOR-LAW MEDICAL OFFICER.

LETTER FROM JOHN LODGE, Esq.

SIR,—I received yesterday the inclosed letter from Mr. Oxford, Clerk to the Keynsham Board of Guardians. The Bitton District comprises an area of 5,066 acres, with a population of 3,050, chiefly coal-miners and labourers; in fact, it is essentially a poor neighbourhood. The nearest point from my own residence is two miles; and the salary paid by the guardians is £40 a year, which includes all extras except midwifery. From 1852 to 1855, the district was held by no less than five medical men. I was appointed medical officer in 1855, and during that time I have secured the full confidence of the poor and the ratepayers. About eighteen months ago, a change was made in the construction of the Board; and since then the most frivolous charges have been brought against me, and it has now culminated in an attempt to eject me from office. Whether this attempt will prove abortive depends on the gentlemanly feeling of my professional brethren. They have now an opportunity of proving the *esprit de corps* of our profession; but, if they lend themselves to a system of oppression, they must expect in turn to be treated with contumely.

I am, etc., JOHN LODGE.

Keynsham, Sept. 9th, 1863.

P.S. I have been medical officer to the Keynsham District for nearly nine years.

The Clerk of the Keynsham Union to John Lodge, Esq.

Keynsham, Sept. 11th, 1863.

DEAR SIR,—I am directed by the Board of Guardians to inform you that, as the term for which you hold the office of medical officer of Bitton District will expire on the 29th instant, it is their intention, previous to filling up the appointment, to advertise the vacancy in the public newspapers; and that the election to the office will take place on Tuesday, the 22nd instant.

I am, dear sir, yours truly,

John Lodge, Esq.

THOS. OXFORD, Clerk.

ANTIQUITY OF TRANSFUSION.

LETTER FROM S. WILES, M.D.

SIR,—The interesting article on Transfusion by Dr. Graily Hewitt, in a late number of your JOURNAL, has suggested to me to send you the following quotation, which shows that the practice is much older than many suppose, and that the operation was a reciprocal one; that is, not only did the patient receive pure, healthy blood into his veins, but he gave back his own impoverished fluid to the supplier; the object of the operation being, not to supply a loss of blood, but to change bad for good. No wonder the victims died.

The quotation is from Villari's *Life of Suvanorola*, on the death of Pope Innocent VIII; but is mentioned also by Sismondi and other writers.

"The vital powers of Innocent VIII rapidly gave way; he had for some time fallen into a kind of somnolency, which was sometimes so profound that the whole court believed him to be dead. All means to awaken the exhausted vitality had been resorted to in vain, when a Jew doctor purposed to try to do so by the transfusion, by a new instrument, of the blood of a young person—an experiment that had hitherto only been made on animals. Accordingly, the blood of the decrepid old pontiff was passed into the veins of a youth, whose blood was transferred into those of the old man. The experi-

ment was tried three times, and at the cost of the lives of the three boys, probably from air getting into their veins; but without any effect to save that of the Pope. He expired on the 25th of April, 1492; and without loss of time they set about the election of his successor."

I am, etc., SAMUEL WILKS.

11, St. Thomas Street, Southwark, Sept. 7th, 1863.

CALABAR BEAN PAPER.

LETTER FROM JOHN W. OGLE, M.D.

SIR,—In Dr. Harley's communication to your last number (September 5th), regarding the Calabar bean, I see that the "*paper*" preparation of this agent, as furnished by Messrs. Bell and Co., is contradistinguished from that supplied by Mr. Squire as being *unable to neutralise* the effect of atropine paper. Having myself used the paper made by Mr. Squire extensively for the purpose of removing the dilatation of the pupil obtained by the application of belladonna and atropine (as related in a former number of your JOURNAL), it appeared to me only right to reassert that, in my hands, it proved amply effective for the purpose. As I stated in the remarks alluded to, a very much smaller portion of the atropine paper than the squares commonly used* is more than sufficient to induce dilatation of the pupil; and, if such a small portion be used, the strength of Squire's Calabar bean paper will be found sufficient. All that is required, in having recourse to it as antagonising the effects of the atropine paper, is to insert, in the first place, a sufficiently small portion of the atropine paper, and subsequently a sufficiently large portion of the Calabar bean paper. Of course, there can be no difficulty in strengthening the solution of the Calabar bean paper so as to make it potent enough to cope with more of the atropine paper. The first paper of the kind made, prepared, I believe, by myself (following Mr. Streetfield as regards the atropine), was intended to be equivalent to the atropine paper in strength. Unfortunately, its preparation failed; and then Mr. Squire's appeared.

I am, etc., JOHN W. OGLE.

13, Upper Brook Street, Grosvenor Square, W.

* The fifth part of an inch square, equivalent to one drop of a solution of the strength of two grains to the ounce.

USE OF NEGRO TROOPS. The comparative liability of white and coloured troops to diseases of a malarious origin has long since attracted the attention of the English authorities, and has doubtless greatly influenced the composition of their forces serving in malarious countries. From the annual report of the British army for 1859, it appears that in Jamaica the ratio of mortality is as follows:—White 101·9, black 8·2; Bahamas, white 159·0, black 5·6; Sierra Leone, white 41·0, black 2·4. These facts have an important bearing on the present policy of our government in organising negro regiments for service in the malarious regions of the South. Already Surgeon-General Hammond has been able to contribute an item of statistical information bearing on this point. In a recent communication to the Secretary of War he states that Medical-Inspector Townshend reports, that in the Department of the Gulf white and coloured troops are found serving together, and equally subjected to malarious influences. The ratio of sick, of diarrhoea, dysentery, remittent, intermittent, typhoid fevers, etc., is white 10·8 per cent., and coloured 0·8 per cent. The argument in favour of the employment of coloured troops at the South, if based on their comparative immunity from the diseases peculiar to that region, is conclusive. (*American Medical Times*.)

Medical News.

UNIVERSITY OF EDINBURGH. List of candidates who received Medical Degrees on Saturday, August 1st, 1863, with the titles of their Theses. [*a*. Denotes those who have obtained prizes for their Dissertations; *b*. Those deemed worthy of competing for the Dissertation Prizes; *c*. Those commended for their Dissertations.]

Amy, Frederick Jersey. (On Varicose Veins.)
Barry, Joseph Edward, England. (On Tracheotomy.)
Bell, Alexander Montgomerie, Scotland. (On Simple Fractures, and their Repair.)

cBeverley, Michael, England. (Commentaries on a Few Cases in Paton's Ward, Royal Infirmary.)

cBoyd, Hugh, Scotland. (On Scorbutus; its Nature, Causes, Symptoms, and Treatment.)

aBraidwood, Peter Murray, East Indies. (On the Development of Striped Muscular Fibre.)

Brakenridge, David James, Scotland. (On Enteric or Typhoid Fever.)

cCameron, Lewis, Scotland. (On some of the Forms of Jaundice.)

cCharteris, Matthew, Scotland. (On the Cranial Circulation.)

Coates, Frederick William, England. (On Amaurosis.)

Craw, John, Scotland. (On Veratrum Viride.)

Crombie, John Liddle, Scotland. (On Diseases of the Rectum.)

cDavidson, John Hannah, Scotland. (Practical Remarks on the Management of Pregnancy and Parturition; and on the Inflammatory and Febrile Diseases of Puerperal Women.)

cDickson, Archibald, Scotland. (On the History of the Treatment of Delirium Tremens.)

Dickson, John Rogerson, Scotland. (Reports on Cases in the Wards of the Royal Infirmary, 1862-63.)

Dickson, William James, Scotland. (On Phrenological Doubts and Difficulties.)

Ducat, Andrew David, Scotland. (On Otorrhœa.)

aDuckworth, Dyce, England. (Observations on the Anatomy of the Capsula Suprenales.)

Duncan, Francis Metcalf, Scotland. (On Podophyllum Peltatum.)

Dunlop, Andrew, Scotland. (On the Ancient History of Medicine.)

Elves, Charles Walter, England. (On Hernia.)

Esheby, Douglas William, England. (On Diphtheria.)

Ferguson, John, Scotland. (On Scrofulous Diseases of Joints.)

Finlay, Robert Barnatzyne, Scotland. (Notes on the Surgery of Hippocrates.)

Gassin, Jean Baptiste Jérémie, Mauritius. (On Progressive Surgery.)

Gillespie, James Robert, Canada. (On the Changes in the Blood as regards Gout and Rheumatism.)

Goodall, Alexander, Scotland. (On Croup.)

cGrosvenor, George Fox, England. (On Puerperal Fever.)

Hammond, Gordon, Scotland. (On Gastric Ulcer.)

cHaynes, Stanley Lewis, England. (On Morbus Coxarius.)

Hedley, William Snowdon, England. (On Polysarcia.)

cHigginson, Henry Talbot, Ireland. (On Light and Heat.)

Jameson, William Hugh, Scotland. (On Diphtheria.)

Jeffrey, William, Scotland. (On Neuralgia.)

Jobson, William, Scotland. (On the Pathology and Analogies of Sinus and Fistula.)

cLewis, Alfred, England. (On Variola.)

Lindsay, Edw., Canada. (On Dysentery and its Complications.)

Lisle, Richard Philip, Wales. (On the Forces which Cause the Circulation of the Blood.)

Lowe, Robert Whittington, Scotland. (On Anæsthesia in Midwifery.)

M'Donald, Alexander, Scotland. (On the Etiology of Pulmonary Haemorrhages.)

Mackie, John, Scotland. (On Rupture of the Uterus.)

cMain, Alexander James, Scotland. (Observations on the Effects of Sulphur in increasing the Sulphuric Acid in the Urine.)

Martin, James, Scotland. (On Paralysis.)

Maxham, John, Canada. (On Idiopathic Dyspepsia.)

Melladoe, Henry Frederick Lavaetz, England. (On Scarlatina.)

Meisner, Nigel Gray, Scotland. (On the Pathology and Treatment of the Enlarged Prostate.)

Middleton, John, Scotland. (On Typhus Fever.)

Miller, John, Scotland. (Contributions to Paleophytology.)

bMillingen, Charles, Constantinople. (Contributions to the History and Physiology of Insects.)

Moffat, Paul, England. (On the Physiological and Therapeutic Actions of Exercise.)

Nesham, Thomas Cargill, England. (On Cancer.)

Packer, James Macnamara, Barbadoes. (On Epilepsy, its Causes and Pathology.)

Potter, John Baptiste, England. (On Typhus and Typhoid Fever.)

Pringle, John, Scotland. (On Rheumatic Fever.)

cReid, Walter, Scotland. (Observations on Small-Pox.)

Rhuid, James, England. (On Injuries of the Head.)

Richard, Robert Angus Campbell, East Indies. (On Scoury.)

cRobertson, John, Scotland. (On Rheumatic Endocarditis.)

cRobertson, Robert, Scotland. (On the Pathology, Diagnosis, and Treatment of Thoracic Aneurism.)

Ross, David Palmer, Penang. (On Gun-Shot Wounds.)
 Rutherford, James, Scotland. (On the Articulations and Movements of the Human Trunk.)
 aRutherford, William, Scotland. (Researches in Anatomy, Physiology, and Pathology.)
 Rutherford, Edward, England. (On Bronchitis.)
 cSheldon, Thomas, England. (On Typhus and Typhoid Fevers.)
 Simpson, David James, Scotland. (On Syphilisation.)
 aspen, Alexander Ingram, Scotland. (On the Mode of Action of Poison.)
 Strachan, John, Scotland. (On the Relation between Cardiac and Pulmonary Disease.)
 Thurner, Benjamin Bingay, England. (On the Distinctions between Typhus and Enteric Fever.)
 cThyne, Thomas, Scotland. (On the Perforating Ulcer.)
 Todd, Alexander, Ireland. (On the Pathology and Treatment of Ulcer of the Stomach.)
 Turner, Richard, Wales. (On Heart Disease.)
 Tuxford, Arthur, England. (On the Causes, Diagnosis, Treatment, and Pathology of Typhus and Typhoid Fevers.)
 cWalker, Thomas, B.A., New Brunswick. (Notes on Cases from the Royal Infirmary.)
 cWatson, Jas., Scotland. (Observations on some New Remedies.)
 White, George Rankine, New York. (On the Function of Digestion.)
 Wilson, James Clark, Scotland. (On the Epidermis and its Modifications.)
 Wilson, John, Scotland. (Observations on Morbus Addisonii.)
 Williamson, Ninian Alexander, England. (On Hygiene.)
 Wood, Thomas Arthur, Isle of Man. (Report of Medical Cases, with Commentaries.)
 Wright, George Arthur Wellesly, Scotland. (On Infanticide.)
 The following candidates received the Degree of M.B. and C.M.

cDavidson, Alexander, M.A. Edinburgh, Scotland. (Notes on Heart Disease.)
 Wilson, George, M.A. Aberdeen, Scotland. (On the Position of the Fœtus in Utero.)

APOTHECARIES' HALL. On September 3rd, the following Licentiates were admitted:—

Davies, Pryce Lloyd, Abercely, Denbighshire
 Thompson, Thomas, Thirsk, Yorkshire
 At the same Court, the following passed the first examination:—
 Yates, William, Westminster Hospital

APPOINTMENTS.

ALBERT, George Pascal, Esq., appointed Resident Surgeon and Apothecary to the Western General Dispensary.
 *BEDDOES, William Minton, M.D., elected Physician to the Salop Infirmary, Shrewsbury.
 BROSTER, J., M.D., appointed one of the Acting Medical Officers to the Southampton Dispensary and Humane Society.
 CLAYTON, Mark H., Esq., appointed Surgeon to the Birmingham Bluecoat School.
 EDMUNDSON, Joseph, M.D., appointed Resident Physician and Superintendent to the Clonmel Auxiliary Lunatic Asylum.
 FERGUSON, G., M.B., elected Surgeon to the Islington Dispensary.
 GELSTON, Thomas James, M.D., appointed Physician to the Limerick County Infirmary.
 LUCAS, William, Esq., Deputy Inspector-General of Army Hospitals, appointed Principal Medical Officer to the Royal Hospital, Chelsea.
 M'CARTHY, Edward, Esq., elected Resident Medical Officer to the Tower Hamlets Dispensary.
 MONTGOMERY, Robert, Esq., elected one of the Court of Examiners at Apothecaries' Hall, Ireland.
 SCOTT, William Herbert, Esq., elected Surgeon to the Islington Dispensary.
 STYMES, Glascoth R., L.K.Q.C.P., appointed Assistant-Surgeon to Dr. Stevens's Hospital, Dublin.
 *WELLS, Thomas Spencer, Esq., appointed Surgeon to the Household in Ordinary to Her Majesty.
 WHITE, Gregory, Esq., appointed Resident Surgeon to the Leith Hospital.
 WILBERS, John St. Swithun, Esq., elected Assistant-Surgeon to the Queen's Hospital, Birmingham.

POOR-LAW MEDICAL SERVICE.

GRIFFIN, Richard W. W., M.D., to District No. 2 of the Southampton Incorporation
 HAY, William H., M.D., to District No. 1 and the Workhouse of the Bridport Union, Dorset.
 LINEKER, Elisha H., to the whole of the Leighton Buzzard Union, Bedfordshire.
 SLATER, Robert, Esq., to District No. 1 of the Ashton-under-Lyne Union.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

BRAMFELD, H. E., Esq., to be Surgeon 2nd West Riding Engineer Volunteers.
 NUNNELEY, J. A., Esq., to be Assistant-Surgeon 2nd West Riding Engineer Volunteers.

To be Honorary Assistant-Surgeons:—

JAMES, H., Esq., 12th Glamorganshire R.V.
 LITTLE, J., M.D., 5th Dumfriesshire R.V.

BIRTH.

FRY. On September 7th, at Thaxted, Essex, the wife of *John W. Fry, Esq., of a son.

DEATHS.

NEWBOLT. On August 13th, at Weymouth, Elizabeth Olivia, widow of the late William K. Newbolt, M.D.
 OWEN. On September 5th, at Southport, aged 56, Sarah Ann, widow of the late John Owen, Esq., Surgeon, of Manchester.
 PIDCOCK, John, M.D., at Watford, aged 90, on September 5.

COUNTY LUNATIC ASYLUMS. The expense last year of the county lunatic asylums in the United Kingdom was £107,663.

TESTIMONIAL. An epergne or candelabrum is to be presented to Mr. T. W. Crosse of Norwich, by the Norwich Pathological Society.

EFFECT OF AGE OF LYMPH ON VACCINATION. Out of one hundred cases of vaccination with dry lymph stored in stoppered bottles for periods rarely exceeding three weeks, only three were unsuccessful; but of three operations with dry lymph which had been kept eleven months, two were unsuccessful, the other producing only one vesicle; and a single operation performed with lymph which had been kept for eighteen months also failed. (*Vaccination Report.*)

SOURCES OF VACCINE LYMPH. Mr. Robert Ceely of Aylesbury, has inspected all the sources whence lymph is contributed to the National Vaccine Establishment. Mr. Ceely's inspection did not lead him to recommend any change of the present sources of supply. On the contrary, in those stations which (as being most frequented) gave him the best opportunities of forming conclusions on the subject, he "met with abundant evidence of the perfectly satisfactory character of the lymph there in use." (*Public Health Report.*)

SUPERSTITION. A curious superstitious notion prevails in Somersetshire, if the following statement is to be believed. A local paper reports that in Taunton a child being attacked with scarlatina, and death apparently inevitable, a jury of matrons was empanelled for the purpose of considering the extremity of the case. To prevent the child "dying hard," all the doors, drawers, boxes, and cupboards were thrown wide open, the keys taken out, and the body of the child placed under a beam, whereby a sure, certain, and easy passage into eternity could be secured. Watchers held their vigils throughout the night, and in the morning the child, to the surprise of all, did not die, and is now gradually recovering.

AN EDITOR'S APOLOGY. The rebel invasion of this State, the threatened demonstration against Philadelphia, and the excitement consequent thereon, make it incumbent on us to ask the indulgence of our readers for any irregularities that the extraordinary circumstances in which we are placed may cause. The editor has felt it to be his duty to take up the musket for city defence, and for awhile his time will be partly occupied with military duties. It is hoped that no emergency will arise that will require his whole time, but if there should, there are others who will no doubt lend their aid in the editorial management of the *Reporter*. The same circumstances have so deranged all branches of business, that it will be difficult to get the full quota of work done, or to get it done with the promptness that is desirable. We shall do the best we can. We must ask our subscribers to be indulgent, to send us communications (for the excitement has nearly stopped these), and to answer our calls upon them as promptly as possible. (*Philadelphia Medical Reporter.*)

SLEEPING IN THE MOONSHINE. A boy, 13 years of age, named Henry Lowry, residing near Peckham Rye, was on Tuesday night expelled his home by his mother for some trifling misdemeanour. He at once ran away to a cornfield close by, and on lying down in the open air fell asleep. He slept throughout the night, which was a moonlight one. Some labourers on their way to work, seeing the boy apparently asleep, aroused him; the lad opened his eyes, but declared he could not see. He was conveyed home, and from thence to an ocular institution, where medical advice was obtained. The surgeon affirmed that the loss of sight resulted from sleeping in the moonshine. The boy is totally blind, and few hopes are entertained of his ultimate recovery.

VACCINATION. The Poor Law Board report that in the year ending at Michaelmas last 703,181 children were born in England and Wales, but only 437,693 persons were successfully vaccinated in the year by the public vaccinators. In 1860, with a smaller number of births, 485,927 persons were successfully vaccinated by the public vaccinators. A considerable number of children are probably vaccinated by private medical practitioners who omit to register them, and many children die before the age (three months) at which vaccination is usually performed; but still there can be no doubt that, partly from carelessness or indifference, and partly from prejudice against vaccination, the provisions which the law has made with the object of extending the practice of vaccination have not been properly effectual.

AMERICAN MILITARY SURGEONS. We may safely challenge the governments of the old world to improvise armies of such magnitude, and supply them with a medical corps from civil life which will present a more honourable record. Whatever may have been our deficiencies in the knowledge of military surgery heretofore, it is now certain that we shall soon, if we do not already, surpass all other nations in our proficiency in this department. This war has called into active service not far from five thousand surgeons. Their duties have been of the most varied and active character. They have followed their commands to the camp, to the field, and to the hospital, and thus have become personally familiar with every branch of the army medical service. But hundreds of practitioners have been compelled by sickness or interest to retire to civil life, and other hundreds have taken their places. (*American Med. Times.*)

A LIBERAL PROFESSION. It is certainly a somewhat remarkable circumstance that, with such a wide field for anatomical and pathological investigation, the medical school of Rome is behind all the others in Italy, and has not produced a really great man, or even a medical work of superior merit, during the present century; nor is it less surprising that in this great city, the real capital of Italy, there is not a single medical periodical published, nor is there a medical society or scientific association of any description in this enlightened city of nearly 200,000 inhabitants. I have inquired of native Romans the reason of this, and have been answered that no secular societies or organisations are permitted here, on account of the danger of their being converted into political associations and used for revolutionary purposes. (*Dr. Lee.*)

UNWHOLESOME FOOD. An Act of parliament was passed on the day of the prorogation to give additional powers for the enforcement of the Nuisances Removal Act of 1855. It reiterates that the provisions of the Act cited with regard to the inspection and seizure of diseased and unwholesome meat are defective, and that it is expedient that the same should be repealed, and that other and more effectual provisions in that behalf should be substituted. The Act declares that the medical officer of health or inspector of nuisances may at all reasonable times inspect and examine any animal car-

case, meat, poultry, game, flesh, fish, fruit, vegetables, corn, bread, or flour exposed for sale, or deposited in any place for the purpose of sale, or of preparation for sale, and intended for the food of man, the proof that the same was not exposed or deposited for such purpose resting with the party charged. In case any such food appear to him to be diseased, or unsound, or unwholesome, it shall be lawful for him to seize the same, or cause it to be seized and carried away by any officer, servant, or assistant in order to have the same dealt with by a justice; and if it shall appear to the justice that any such animal, or any of the articles mentioned is diseased, or unsound, or unwholesome, or unfit for food, he shall order the same to be destroyed or so disposed of as to prevent such animal or article from being exposed for sale, or used for such food; and the person to whom such animal or article belongs, or did belong at the time of the sale or exposure for sale, or in whose possession, or on whose premises the same is found, shall on conviction, be liable to a penalty not exceeding £20 for every animal or article so found; or at the discretion of the justice, without the infliction of a fine, to imprisonment in the common gaol or house of correction for a term of not more than three calendar months. In case any person shall in any manner prevent such medical officer of health or inspector of nuisances from entering any slaughterhouse or building where such food is kept for sale, or shall in any manner obstruct or impede him or his servant or assistant, when duly engaged in carrying the provisions of this Act into execution, such person shall be liable to a penalty not exceeding £5. The Act and the Nuisances Removal Act for England (1855) are to be read and construed together as one act.

THE CHANNEL FLEET AT GLASGOW. On the evening of Saturday, the 5th inst., the Faculty of Physicians and Surgeons of Glasgow entertained at dinner, in their hall, St. Vincent Street, the medical officers of the Channel Fleet, on their visit to the Clyde. Flag-Surgeon Sloggett, Surgeons Jack of the Royal Oak, Wells of the Warrior, Speer of the Liverpool, Scott of the Resistance, Courtney of the Defence, and Comrie of the Edgar, along with Assistant-Surgeons Jones and Dr. Haines, were present. Staff-Surgeon Lewins, and Surgeon Leitch, of the 41st regiment, now in Glasgow, were also present. The President, Dr. Ritchie, who was in the chair, in addition to the guests of the evening, was supported by Professors Rainy, Pagan, and Easton; and the Visitor, Dr. J. G. Fleming, who was croupier, by Professor Gairdner, and by former presidents, Dr. A. D. Anderson, Dr. Hunter, and Dr. Lyon. A large number of the other Fellows of Faculty were present at dinner. After the usual loyal and patriotic toasts had been drunk, "The Medical Department of the Navy" was given by the President, and that of the "Army" by the Croupier, in appropriate speeches. The existing high efficiency of the medical department of the Navy, and the improved position of naval surgeons, was favourably contrasted with their past condition in former periods, and to them was accorded the credit of having achieved, through many difficulties, so much for the sanitary welfare of the service. It is not often that the medical officers of the public services have an opportunity of meeting with a collective body of their professional brethren engaged in civil practice; and really on this occasion all present seemed to have much pleasure and gratification from the cordial and kind interchange of friendly feelings and sentiments which took place throughout the evening. (*Glasgow Daily Herald.*)

HOSPITAL OF SAN SPIRITO. This stands on the right bank of the Tiber, near St. Peter's. It is said to have been founded by a Saxon king. It was, however, greatly enlarged at the end of the twelfth century by Innocent III., and has gone on increasing so as now to form almost a small town within itself, being very richly endowed; not

only possessing large landed property in the city, but also much of the territory between Rome and Civita Vecchia. This Pope confided it to the *Brothers of the Order of San Spirito*, from which it derived its name. Successive Popes have done much to enlarge and enrich it. Benedict XIV, *e.g.*, in 1751, added a museum and anatomical theatre; the museum was increased with very choice specimens by Pius VI; still Pius VII added dissecting-rooms, baths, and many other requisites. The most important repairs, however, in its management and administration, as the Romans think, have been made by the present Pope, Pius IX, in the appointment of twenty Capuchin priests to its spiritual assistance, and the erection of a house for them within the inclosure, so that some of them might be in constant attendance on the patients both day and night. The entire establishment consists of a male and female hospital, entirely distinct; divided, as usual, into medical and surgical wards, clinical wards for each sex, with a lecture and operating-room adjacent; a military hospital for the Papal troops, a founding hospital, and a lunatic asylum. There is space for about 2500 beds in the civil hospital, though ordinarily there are only about 650 medical and surgical cases in the wards. There are, besides, 450 lunatics. 15,000 patients are annually admitted; the mortality averaging about eight per cent., or even less. During the summer months the wards are filled with cases of intermittent and remittent ever from the Campagna, as well as large numbers from the city; in the winter season the number is greatly reduced. The small amount of mortality is attributed to the great proportion of malarious diseases admitted, which are usually promptly cured by large doses of quinine. I counted about twenty beds in the clinical ward, some of them unoccupied. There is a tolerable pathological museum in the hospital, as well as a collection of instruments, and a library, most of which were bequeathed to the institution by the eminent physician, Lancisi. (*Dr. Lee.*)

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—SEPTEMBER 5, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys.. 925 Girls.. 338 }	1863 1232
Average of corresponding weeks 1853-62		1830 1282
Barometer:		
Highest (Tu.) 29.906; lowest (Sat.) 29.507; mean, 29.700.		
Thermometer:		
Highest in sun—extremes (Sun.) 109 degs.; (Wed.) 86 degs.		
In shade—highest (Sun.) 72.1 degs.; lowest (Tu.) 45.2 degs.		
Mean—57.8 degrees; difference from mean of 43 yrs.—0.9 deg.		
Range—during week, 26.9 degrees; mean daily, 17.1 degrees.		
Mean humidity of air (saturation=100), 76.		
Mean direction of wind, S.W.—Rain in inches, 0.71.		

TO CORRESPONDENTS.

* * * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

ERRATUM.—In page 274 of last number, column 1, line 23 from bottom, for "eight months from the date of injury", read "five months from the date of the injury."

R. M.'s request shall be attended to.

AN ADVERTISEMENT.—The following advertisement has been forwarded us for publication. We regret to see a profession treated in such a trade-like fashion; but so long as the advertising columns of the daily journals are made the vehicle for the public display of the titles and qualifications of the "Great Ones of the City", we shall not be surprised to see such things as the following in our country journals.

"Removal of Residence. Mr. —, Surgeon, removed to No. — (five doors from —). The Surgery, as usual, at the bottom of —. The house — to let."

UNQUALIFIED ASSISTANTS.—SIR: At a village in a midland county, there has been practising for the last eighteen months a young gentleman without any medical or surgical qualification, and who has not even attended his hospital practice or lectures. He is aided and abetted in his illegal course by a surgeon of some years standing in a neighbouring county town, about nine miles distant, who goes over when sent for, and lends his name, in order that the gentleman may recover his debts, and apply for, and hold sick clubs: thus enabling him to evade the Apothecaries' Act, and the 36th clause of the new Medical Act, to the injury of the qualified practitioners in the neighbourhood, and the common interests of the profession.

I have the best authority for stating that the gentleman is neither the partner nor the assistant of the town surgeon; although I cannot suppose for a moment that the latter lends his name for an idea only.

Will you kindly favour me with your opinion through the medium of your pages of the whole proceeding; and also point out some plan by which this flagrant evasion of our medical enactments can be prevented.

August 1863.

I am, etc.,

INDEX.

[There can be no doubt that the whole proceeding, as here described, is utterly irregular, and utterly unworthy of members of our honourable profession. How it can be stopped legally, we know not. There are many bad things which no law can touch; and which can only be done away with by the force of public and professional opinion. The whole question of unqualified assistants is a very important and difficult one. As far as we can see, there is nothing beyond respect for professional credit to prevent a medical man keeping half a score of assistants, and locating them, as jackals, in the villages around him. So long as the law allows any one, qualified or unqualified, to practise medicine, we fear that there is no remedy, beyond what is derived from the scorn of good men, for the case here referred to. EDITOR.]

COMMUNICATIONS have been received from:—MR. CHRISTOPHER HEATH; DR. BOYCOTT; DR. S. WILKS; DR. J. W. OGLE; MR. T. SYMPSON; DR. C. KIDD; DR. THOMAS J. WALKER; DR. MORELL MACKENZIE; DR. SANKEY; MR. R. DUNN; DR. ELLAM; MR. JAMES ALLEN; DR. E. WILLIAMS; MR. J. W. FRY; MR. R. MARTIN; AN ASSOCIATE; MR. T. L. FRIDHAM; MR. F. D. FLETCHER; DR. LIONEL BEALE; MR. ERASMUS WILSON; MR. J. SIDNEY SMITH; MR. JOHN LODGE; RUSTICS EXPECTANS; AND THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

ADVERTISEMENTS.

Laryngoscopes, from 30 shillings
each. See the *Lancet*, August 8th, 1863.

Speculums, as originally made by me for Professor FEROUSON, three different sizes in a Case, 10s. And every description of Instruments, Splints, Swing Cradles and Apparatus of every description at moderate prices and of the newest construction, as used by the various Surgeons at the Metropolitan Hospitals. W. MATTHEWS, Surgeons' Instrument Maker to King's College Hospital, 8, Portugal Street, W.C. Catalogues gratis.

THE ORIGINAL CHLORODYNE,

INVENTED AND MANUFACTURED, IN 1844, BY RICHARD FREEMAN.

(Extract from Affidavit made before S. C. WARD, Esq., Chancery Record Office, Chancery Lane, London, June 16th, 1862.)

The Inventor begs to thank the Medical Profession for the liberal support he receives from them, and to assure those who have not yet tried his Chlorodyne that it is superior to any other maker's, being more certain and more lasting in its effects; and the low price which he charges for it allows the poorest sufferer to enjoy its extraordinary beneficial influence. The immense demand for it by the Profession is a convincing proof that they find it a most valuable therapeutical agent. The following are a few out of many voluntary Testimonials:—

From W. VESALIUS PETTIGREW, M.D., Hon. F.R.C.S.Eng., formerly Lecturer upon Anatomy and Physiology at the St. George's School of Medicine.

"I have had the opportunity of trying the effects of Mr. Freeman's Chlorodyne, and find it an excellent Anodyne and Antispasmodic medicine."

From H. J. O'DONNELL, M.R.C.S.E. & L. M. etc., etc.,
Albert Terrace, London Road, S.

"I can with much confidence bear testimony to the efficacy of Mr. Freeman's Chlorodyne as a Sedative and Antispasmodic, having used it for some years in Colic, Neuralgia, Phthisis, and Asthma. I daily administer it in after-pains, and in all cases find it infallible. It is the most valuable medicine we have in Labour cases. I find, since I have used it, the pains seldom or ever exceed the third day, while with the former remedies my patients suffered eight or nine days. In fact, I cannot speak too highly of it."

From F. W. HOOPER, M.D., M.R.C.S.Eng., etc., etc., Medical Officer, Christ Church District, Camberwell.

"I have much pleasure in stating, that after a sufficient trial of Mr. Freeman's Chlorodyne, I am fully persuaded that it is superior to any preparation of the kind, and, from its moderate price, is a great boon to the suffering poor, who daily acknowledge its salutary benefit."

From C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, etc., etc.

"Having been in the habit of using Mr. Freeman's Chlorodyne for some time past, I have much pleasure in stating that it has never failed to have the desired effect in whatever case it has been administered."

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ACID. PERCHLOR.
TINCT. CANNABIS INDICÆ.
ACID. HYDROCYAN.

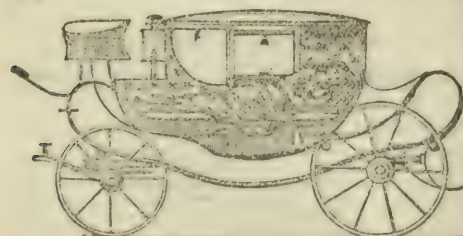
TINCT. CAPSICI.
MORPHIA.
THERIACA.

The proportion of Morphia— $\frac{3}{4}$ gr. in f. 5i. Dose—Five to twenty Drops.

Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J.P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession."

Sold in bottles, 1 oz., 1s. 6d.; 2 oz., 2s. 6d.; 4 oz. and 8 oz., 1s. per fluid oz. Sole Manufacturer and Proprietor, A. P. TOWLE, Chemist, etc., Ardwick, Manchester. May be had from Barclay and Son, Farringdon Street; or through any Wholesale House.

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Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

THE TREATMENT OF HOARSENESS AND LOSS OF VOICE BY THE DIRECT APPLI- CATION OF GALVANISM TO THE VOCAL CORDS: ILLUSTRATED WITH CASES.

By MORELL MACKENZIE, M.D.Lond., Physician to the
Dispensary for Diseases of the Throat.

THE object of this paper is not to enter minutely into the nature of neuroses of the larynx, but briefly to describe those diseases where, from abnormal innervation, the vocal function is disturbed or destroyed, and in which the local application of galvanism appears to act beneficially.

From the earliest period, patients affected with loss of voice have undergone wonderful cures. Superstition has exercised its potent influence, and many have doubtless been relieved by priestly exorcism and magic incantation. Sudden fright has in some cases cured, in others caused,* a loss of voice. In modern times, stimulant vapours have been brought to bear directly on the larynx; and the voice has been restored by the inhalation of chlorine, ammonia, and other irritants, or by the direct application of caustic solutions to the lining membrane of the larynx. Both the mental and physical remedies, however, act on the same principle; viz., that of stimulating the "nerve-force". But whilst in the former the action of the remedy is on the entire nervous system, in the latter its influence is confined to the nerves of the part affected.

It was natural that, when the power of electricity as a therapeutical agent was discovered, it should be applied to the relief of symptoms often presenting obviously nervous phenomena; and many cases are on record, where galvanism, applied to the throat, has cured cases of long standing aphonia. It was not, however, till quite recently, when the introduction of the laryngoscope enabled "the eye to direct the hand", that it became possible to apply the galvanic current directly to the nerves and muscles of the larynx. It sometimes happened, therefore, that the current, when applied externally, took a circuitous course, and failed to effect the desired stimulation, even where the use of electricity was unmistakably indicated.

For the purpose of applying galvanism directly to the vocal cords, I have contrived a very simple and efficient instrument, and with it have several times succeeded in

curing cases of long standing aphonia, which had obstinately resisted the ordinary external mode of applying galvanism.

It must not be imagined that I am recommending galvanism as an universal panacea, even in all cases of nervous aphonia or dysphonia. Where there is cerebral lesion, or where the pneumogastric nerve or its branches are seriously injured or pressed upon, it is not to be expected that galvanic shocks could do any good, though they might possibly do harm. On the other hand, where there is merely a diminished tension of the nervous centres, or an exhausted or otherwise impaired excitability of the nerves of the part, electricity will probably do good.

Galvanism of the vocal cords is likely to prove beneficial, therefore, 1, when aphonia occurs as a symptom in conjunction with considerable disturbance of the nervous system; 2, in hysterical aphonia; 3, in aphonia associated with certain blood-diseases, as chlorosis and anæmia; 4, in certain cases of blood-poisoning (arsenical, lead, and perhaps others); 5, in certain cases of purely local paralysis—a, in those analogous to the paralysis of the muscles supplied by the facial nerve—b, in diphtheritic* paralysis of the vocal cords; 6, in certain cases of muscular strain, where, after due time has been allowed for the muscles to recover their perfect contractility, there still remains a want of power; 7, in certain cases of dysphonia, where there is congestion of the mucous membrane of the larynx, and where local astringents have failed to remove the congestion and restore the voice or relieve the hoarseness. In this classification, an attempt has been made to separate those cases of aphonia caused by impaired innervation from those due to an altered condition of the muscular tissue. From the close association and dependence of the nervous and muscular systems, however, such an attempt can only be very partially successful.

The laryngoscope furnishes more simple and certain indications as regards the class of cases in which galvanism ought to be used, than the most careful analysis of the pathological conditions can possibly afford. When, on examining the larynx of an aphonic patient, and directing him to attempt to vocalise, the cords are seen to remain apart, no mechanical impediment to their closure being present, the case is probably well suited for galvanism. In some cases, the separation between the vocal cords is slight; whilst in others it is very considerable. Sometimes the vocal cords appear to approximate properly; but, on careful examination, a certain want of tenseness may be detected. They are relaxed, and bulge slightly upwards or downwards, according as the air is expired or inspired. This condition would appear to depend on deficient action of the crico-thyroid muscle; and in such cases it is desirable to pay particular attention to that muscle in employing galvanism. It must be admitted, however, that in some cases of nervous aphonia, the vocal cords appear closely approximated and perfectly tense; and in these the functional disturbance must depend on some molecular change not appreciable with the laryngoscope. In most cases of nervous aphonia, the mucous membrane of the larynx will be seen to be abnormally pale, though in some it is slightly congested.

Cases as far as possible illustrative of each of the forms of nervous aphonia in which galvanism is serviceable will now be related. The history of most of them will be much abridged; but one or two of the most remarkable will be given *in extenso*.

1. Cases of aphonia dependent on considerable general

* Many London practitioners will recall the case of a young lady who suddenly lost her voice after seeing Miss Webster, the ballet girl, accidentally burnt to death, some years ago, at Drury Lane Theatre. Miss L. was under the care of a great many practitioners; and caustic solutions, as well as every other kind of treatment, failed to do her any good. After two years, however, she married; and, though the emotion of love had not affected the aphonia, and the effect of gestation had not been sufficiently powerful to cause a change, under the influence of the maternal feelings, whilst playing with her first-born, she regained her voice. This case was mentioned to me by a medical friend, as being one which, in all probability, would have rapidly yielded to internal galvanism.

* In cases of diphtheritic paralysis of the vocal cords, the loss of function appears to be sometimes the result of a powerful blood-disease, whilst at others it seems due to the morbid influence which the false membrane exercises on the nerves of the part. In the former case, diphtheritic paralysis might perhaps be more properly classified with paralyses dependent on chlorosis or anæmia.

disturbance of the nervous system are not uncommon; and though this description will appear, as it undoubtedly is, somewhat vague, there is a tangible reality about the following case, which shows that, in this instance at least, there is no ground for saying, with Goethe,

"Denn eben wo Begriffe fehlen
Da stellt ein Wort zur rechten Zeit sich ein."

CASE I. Loss of Voice, of Three Years' standing, cured by Eight Applications of Galvanism internally; a hoarse Voice returning after the Fourth Application. Miss Kate H., aged 26, consulted me in March 1863 for loss of voice. The young lady looked rather delicate, if not sickly; but did not complain of weakness. She was of a cheerful disposition, and did not appear in the least degree hysterical. She informed me that, in April 1860, she took cold, had an ulcerated sore-throat, and lost her voice. She afterwards wrote me a more detailed account of her aphonia, which I shall give as far as possible in her own words. "After recovery from the sore-throat, the voice did not return; and in October 1860, her regular medical attendant applied caustic twice to the throat, but without any effect." She then consulted some of the leading London physicians, and, among others, Dr. Walshe, who clearly recognised the nervous character of the disease, and "recommended galvanism to be applied, first by one of Pulvermacher's chains, and afterwards, if that did not succeed, by means of a battery. Neither produced any effect." This distinguished physician then "strongly urged her to leave it to nature, which she did till April 1862, when she had the throat painted with iodine, with no other result than making it very sore on the outside." In May, another eminent physician prescribed "zinc pills, which were taken three times a day for a month, without any result. In June 1862, Dr. Blandford met Dr. Czermak, to examine the throat with the laryngoscope. Galvanic shocks were strongly advised"; and, in the following November, Miss H. placed herself under a physician who has paid especial attention to medical electricity. "He applied galvanism every day with a metallic brush, and afterwards in a stronger form for a fortnight. All this time there was not the least return of the voice."

Miss H. applied to me in March 1863; and, in making a laryngoscopic examination, the vocal cords were seen to be very pale and narrow, as if atrophied. On attempted phonation, they approximated well, but still were distinctly relaxed; and the upward bulging towards their centres was quite perceptible.

I at once applied galvanism to the cords, by means of my "laryngeal galvaniser". The operation was repeated every two or three days; and, after the fourth application of the electro-magnetic current, the voice returned. It was very gruff at first, and "came and went"; so that, though the young lady recovered her voice one evening, when she came to tell me of her good fortune the next day, she was unable to produce a sound. Gradually the voice became more constant, though its monotony was very striking; every syllable and every sentence was pronounced in the same tone, with an entire absence of expression. After the larynx had been galvanised altogether eight times, the voice was completely restored, and perfect as regards modulation. The laryngoscopic evidence of relaxation of the cords disappeared after the third application of galvanism.

Many people would consider this case an example of hysterical aphonia; but I must again repeat, that the patient never showed a single hysterical symptom. Being anxious to investigate the case thoroughly, I wrote to Dr. Alfred J. Tapson (of Gloucester Gardens), the regular professional adviser of the young lady, and he kindly replied as follows:—"Miss Kate H. has been a patient of mine for a good many years, and I well recollect her illness in 1860. She suffered from intense headache, a remarkably quick pulse, and total loss of

appetite, attended with great prostration, emaciation, and loss of voice. She had no hysterical symptoms. Dr. Todd saw her several times, and was quite puzzled what to make of her symptoms. We both had some suspicions that she might be going to have tubercle in the brain or elsewhere. She gradually recovered her health and strength, but never her voice (though I and many others tried all we could think of). She gave everything a fair trial, being most anxious to regain her voice."

I have entered somewhat minutely into the history of this case, because I was anxious to show that it was entirely free from hysteria, and that the aphonia was dependent on profound disturbance of the nervous system. There were, as Dr. Tapson says, "intense headache, a remarkably quick pulse, and total loss of appetite, with great prostration and emaciation." It is scarcely necessary to observe that such symptoms imply impaired innervation of the most extreme form.

Galvanism was clearly indicated in this case. Dr. Walshe from general investigation, and Dr. Czermak from special examination of the larynx, both recommended electricity. External electricity was vigorously employed by an experienced galvanist, "without the least return of the voice". Electricity applied directly to the vocal cords succeeded rapidly in restoring the voice, which had been completely lost for three years. No comment on the superiority of the internal method of employing galvanism is required.

2. Though cases of hysterical aphonia are occasionally reported in the journals, and are to be found in the works of medical authors, they are in reality extremely rare. Where aphonia affects a young woman otherwise healthy, medical men are apt to consider the case hysterical, even though no symptoms of that disease (beyond the aphonia) are present. Such a palpable plan of begging the question obscures the real nature of the disease, and can only lead to unscientific and unsuccessful treatment. During the last six months, more than three hundred cases in which the voice was decidedly impaired have come under my notice. Of these, there was only one case which could possibly be called "hysterical aphonia". The following are the notes.

CASE II. Loss of Voice of Eighteen Months' duration, cured by Eleven Applications of Galvanism to the Vocal Cords. Charlotte C., aged 19, a paper-folder, was brought to me in February 1863. She was a tolerably healthy looking, though rather flabby young woman, and had latterly been overworked. The aphonia had existed for eighteen months, and came on quite suddenly, without any known cause. She had never suffered from an attack of hysterics; and the hysteria only showed itself by a strong inclination to cry (which could rarely be restrained) after being galvanised. She did not sob, however, in the usual hysterical way. I applied galvanism to the vocal cords two or three times a week; but the voice was not regained till after the seventh application of galvanism, when it returned suddenly on desisting from the operation. The treatment was gone on with a short time longer, and was not altogether discontinued till the end of March.

3. Two cases of aphonia associated with anæmia, and one in which chlorosis was present, have come under my observation. It is difficult to tell in such cases whether the functional disturbance depends on diminished tension of the nervous centres, on lowered excitability of the nerves of the part, or on impaired contractile power of the muscular tissue itself. One case of anæmic aphonia that I had an opportunity of seeing was under the care of another physician, but in the other I was able to employ galvanism internally.

CASE III. Aphonia, of Six Months' standing, cured by a single Internal Application of Galvanism. Mary E., aged 22, applied at the Dispensary for Diseases of the Throat on May 10th, 1863. She stated that she had

been out of health for about a year, and that she had lost her voice for the last six months. She was very pale, and complained of great weakness and depression of spirits, for which "she had been taking steel medicine for some time". The aphonia came on gradually; the voice first becoming weak in the evening, then being extinguished in the morning (while she was able to speak quite well in the afternoon); and finally she was quite unable at any time to raise her voice above a whisper. She had remained in this state for six months.

May 21st. I applied electricity to the cords, and the patient immediately spoke.

The operation was repeated first twice and then once a week for a month; but the voice was never once even temporarily suppressed after its restoration on May 21st.

In this case, after the recovery of the voice, the patient's general health rapidly improved. Though, as a rule, in these cases, the anæmia and aphonia stand in the relation of cause and effect, it must not be forgotten that the loss of voice reacts as a depressing power on the general system.*

4. One case of aphonia from arsenical poisoning, and one case of saturnine dysphonia, have come under my observation. I did not make use of galvanism in the first case, because, at the time when it was under treatment, no instrument had been invented for applying electricity to the vocal cords, if indeed the idea of employing galvanism in this way had ever occurred to any one. The case will be found recorded in the *Medical Times and Gazette* of January 11th, 1862; and those who take the trouble to peruse it will probably agree with me in thinking that galvanism would most likely have restored the voice. In the case of saturnine dysphonia, which was of twelve years' standing, there was considerable and irregular atrophy of the left vocal cord. The employment of galvanism in this case would most likely have been unsuccessful; but other cases, uncomplicated with atrophy, would probably be benefited by the direct application of galvanism.

5. In cases of purely local paralysis, galvanism strongly recommends itself. Three cases of this kind have come under my care. In two, the aphonia was soon cured; while, in the other, the patient discontinued his attendance before any result had been obtained. Two cases of this class have also occurred in the practice of Dr. Stokes, the distinguished Regius Professor of Medicine in the Dublin University, which galvanism, directly applied to the vocal cords by my friend Dr. P. C. Smyly, rapidly cured. In one case (already recorded in the *Medical Times and Gazette*, July 11th, 1863), the etiology is somewhat obscure; but in the one which will presently be related, the aphonia seemed to be closely connected with an affection of the pneumogastric nerve.

CASE IV. *Loss of Voice, of Eight Months' standing, cured by Ten Applications of Galvanism to the Vocal Cords.* Mr. Charles E., aged 35, applied to me on the 11th April, 1863, on account of loss of voice. He stated "that he had suddenly lost his voice in Sep-

tember 1863, whilst eating an ice." He had tried various remedies, and had worn one of Pulvermacher's chains for some time. At Christmas he had fallen into the hands of the Philistines, and a well-known homœopathic doctor had promised to cure him. The disciple of Hahnemann, however, after four months trial (notwithstanding that he had given the most powerful globules), failed to bring about the most infinitesimal improvement in the voice; and Mr. E. applied to me in April, a wiser, if not a happier man.

On examining the throat with the laryngoscope, no evidence of structural disease could be detected. The lining membrane of the larynx was of normal colour; but, on attempted phonation, the vocal cords only very partially approximated, remaining at least a quarter of an inch apart posteriorly.

I did not see the patient again till a month later, when I applied magnetic electricity to the cords. The operation was repeated seven times, at intervals of one, two and three days, before any effect was produced; but the patient then regained his voice—if, indeed, the harsh discordant sound produced in the larynx could legitimately be called by that name. After three more applications of galvanism, the voice became tolerably clear and strong; and, when last seen (July 1st), the patient stated that "his voice was as good as it ever had been."

CASE V. *Aphonia, of Nine Months' standing, cured by Five Applications of Galvanism to the Cords (the First Application partially succeeding).* Henry D., aged 40, a working engineer, applied at the Dispensary for Diseases of the Throat in June 24th, 1863. He stated that, one cold night in November 1862, he was aroused from his sleep by an alarm of "fire". The next morning, he could not sound his voice. He had never had any pain in the throat, nor had he ever suffered from cough.

On examining the larynx, the vocal cords appeared to approximate properly; and there was no appreciable relaxation. The mucous membrane was pale, and there was not a trace of structural disease.

This case was considered to be one of purely local paralysis, caused, probably, by an impression of cold in the neck externally, or perhaps by cold air brought to bear (by inspiration) even more directly on the larynx. It might, however, have been due to the impression of sudden alarm acting on the general nervous system.

The vocal cords were first galvanised June 8th, and the operation gave rise to considerable local irritation; the patient coughed continuously, in a peculiar shrill way, for at least twenty minutes; and, an hour afterwards, expectorated a little blood. Two days later, he was able to speak, though it required a great effort. On examining the larynx then, the lining membrane was seen to be very much congested; and, in spite of the desire of the patient, I did not think it advisable to repeat the operation that day. At the end of a week, I again galvanised the vocal cords, and the same violent irritation was again caused. This time, however, the symptoms of irritation soon passed off; and, after three more applications of galvanism, the voice became natural.

One other patient, suffering from this form of aphonia, was also under treatment. The loss of voice came on suddenly, after travelling to London in a night-train from the north of England. After four applications of galvanism, no effect having been produced on the voice, the patient, getting tired (I suppose) of the treatment discontinued his visits.

One case of paralytic dysphonia, occurring as a sequel of diphtheria, has been successfully treated by the direct employment of electricity.

CASE VI. *Diphtheritic Dysphonia, of Fourteen Months' Duration, cured by Twenty-five Applications of Galvanism to the Vocal Cords.* Patrick O., aged 19, was sent to me in April; but I first commenced treatment in the middle of May. The patient stated that, in March

* Independently of the influence which the muscular sensibility of the larynx exercises on the general economy, it must be borne in mind that the respiratory muscles are far more powerfully employed in vocalisation than in ordinary expiration; if, therefore, the tension of the vocal cords is not sufficient to become vocal, it is evident that the hygienic effect of the respiratory process in the system at large must be seriously impaired. Again, "the abundant spontaneous activity of the vocal organ" causes it to exert a constant influence on the intellect; whilst as an organ of expression in relation to emotion, it is scarcely surpassed even by the features. (*Utile Bain, The Senses and the Intellect*, p. 307.) It is not surprising, therefore, that the loss of function should act as a powerful depressant on the general system, nor that its restoration should cause such salutary results.

In addition, moreover, to the purely psychological relation between the voice and general system, the aphonia, besides debarring the patient from many social pleasures, by interfering with his attention to business, sometimes causes serious losses and proportionate anxiety and trouble. Here then is another cause of depression.

1861, he had an attack of diphtheria; that, since that time, he had always found great difficulty in speaking aloud; and that, when he did succeed, his voice was always very squeaky. On looking into the throat, the pillars of the fauces presented a peculiarly atrophied appearance; and on the posterior wall of the pharynx there were several lumps of inspissated mucus. On using the laryngoscope, and directing the patient to say "Eh", it was seen that, whilst the right vocal cord advanced well to the centre, the left vibrated slowly, without moving at all towards its fellow. The sound produced was in the falsetto register, and he was unable by the most violent efforts to produce a chest-note. He stated that, before he suffered from diphtheria, he had a remarkably loud and strong voice.

On the application of galvanism to the cords, he at once spoke in the chest-register. The high-pitched squeaking voice soon returned, however—according to the patient's account, "directly he got into the open air". Galvanic shocks were continued first every day, and afterwards every two or three days for two months; when, the voice having been restored for more than a fortnight, and the left vocal cord acting perfectly, it was not thought necessary to continue the treatment.

CASE VII. *Aphonia, of Ten Months' Duration, cured by Three Applications of Galvanism to the Vocal Cords.* The following case of aphonia was associated in its origin with an attack of hooping-cough. It is well known that, when adults are affected with pertussis, they generally suffer much more than children do under similar circumstances; and it is now a common opinion that the disease, as Dr. Watson observes, depends "on some morbid influence exercised upon the pneumogastric nerve". I therefore consider this case of aphonia to be dependent on a distinct local paralysis of the muscles in connexion with the vocal cords. This case occurred in the practice of Dr. Stokes; and the patient was galvanised by Dr. P. C. Smyly, by whom the following notes were taken.

"Mrs. —, a tall, handsome woman, mother of seven children, rather anæmic, but not thin. At each confinement she had severe floodings. Eight years ago, she had hooping-cough. Since then she has suffered from loss of voice every winter. Last August, however, she lost her voice after a slight cold, and has not since recovered it. I saw her for the first time on the 22nd of June, 1863, with Dr. Stokes. I examined her with the laryngoscope, and expressed my opinion that the affection was nervous; for, in fact, there was not a trace of disease, and nothing abnormal, except a slight redness of the mucous membrane. The vocal cords lay quite flaccid. She said, 'Were the house on fire, I could not cry out.' I applied the electric current by means of Dr. Mackenzie's instrument, using a very feeble current. After this application, Dr. Stokes thought he heard a faint sound, at the end of a violent effort on the part of the patient to say 'Eh'.

"On the 24th, I applied a much stronger current than on the first occasion. After this, she could sound several words, but with a great effort.

"25th. I again applied the galvanism, using a very strong current, and repeating the application several times in an hour. This was necessary, as she had to leave town next day. After this application, she could count with ease, and speak whole sentences without effort.

"26th. She called this morning to say that her voice was quite restored, and quite natural, with the exception of a slight huskiness, scarcely perceptible.

"July 13th. Dr. Stokes had a letter to-day from the lady, saying that her voice was as perfect as when she left town."

6. I have had an opportunity of applying galvanism to the vocal cords in two cases of functional disease of the larynx, dependent on muscular strain. In one,

there was complete aphonia; but in the other the voice was not entirely suppressed.

CASE VIII. *Aphonia, of Two Months' standing, cured by Six Applications of Galvanism to the Vocal Cords.* The Rev. Philip S. applied to me early in June, on account of loss of voice. The aphonia came on one evening in April, while he was preaching in a large London church. While in the middle of a sermon, he felt a sudden pain in the throat, and was obliged to finish almost in a whisper. Since then he had never been able to speak out loud. Mr. S. stated that he had lost his voice on two previous occasions, but that hitherto he had always regained it in a day or two.

On looking into the larynx, the vocal cords and other parts appeared healthy, and there was no trace of follicular disease. The cords approximated, and appeared tense; nevertheless, the patient could not emit a sound from the larynx. He had a slight suppressed cough.

June 1st. I galvanised the vocal cords, and repeated the operation on the 3rd, 5th, 8th, 10th, and 12th. The voice returned after the sixth application of galvanism. I did not see the patient again for a week, and the voice was then perfectly natural. Mr. S. has visited me once or twice since, and I am happy to say that the restoration of voice has been permanent.

CASE IX. *Aphonia, of Four Months' Duration, cured after Five Applications of Galvanism to the Vocal Cords.* John M., aged 41, a fish-hawker, applied at the Dispensary on May 11th, on account of loss of voice. Aphonia came on suddenly after making great efforts one Saturday evening; but he afterwards partially recovered his voice. It was now so weak, that for four months he had been obliged to give up his vocation. On making a laryngoscopic examination, the larynx looked healthy; but, on attempted vocalisation, the cords exhibited a strong tendency to remain apart, though by violent straining they could all but be brought into a state of approximation. The mucous membrane was not particularly congested. Galvanism was applied internally every other day for rather more than three weeks; and the voice was fully restored after its fifth application, when the man resumed his occupation. To prevent relapse, the galvanism was repeated several times after the restoration.

7. Finally, there is a class of aphonic cases, not by any means clearly dependent on nervous causes, which may nevertheless be sometimes relieved by internal galvanism. These are cases of chronic congestion of the larynx. I originally tried this remedy in such (apparently unsuitable) cases on two patients affected with a chronic congestion of the larynx, which had entirely resisted ordinary topical stimulants. I have since employed galvanism in three other such cases—in two with partial, and in one with complete, success.

It is probable that, in chronic congestion of the larynx, galvanism acts as a strong organic stimulant on the local circulation, either by its direct action on the coats of the capillaries, or indirectly by causing strong muscular contractions. It is not pretended that, in ordinary cases of chronic congestion of the larynx, galvanism is the most suitable remedy. There are other agents which yield most satisfactory results, and are far less troublesome to employ. It is quite possible also that, in the instances in which I have employed galvanism successfully in chronic congestion of the larynx, the hyperæmia might have been an accidentally superadded condition upon, or a sequence of, impaired innervation. The following extracts from more copious notes will perhaps give an idea of the value of galvanism in the class of cases now under consideration.

CASE X. *Loss of Voice, of Ten Months' standing, cured after Six Applications of Galvanism.* Henry P., aged 40, a watchmaker, applied to me in January, on account of loss of voice. The aphonia had come on suddenly in the previous spring.

With the laryngoscope, the vocal cords were seen to be highly congested, their colour being bright red. Strong solutions (3j to ʒj) of nitrate of silver were applied to the larynx every other day. This treatment was continued for a month; and, it not being successful, a solution of sulphate of copper was used, instead of the silver salt. After employing this stimulant for more than three weeks, the voice still being entirely suppressed, it was determined to try the effect of galvanism. After three applications of electricity to the cords, the voice returned. It was rather hoarse at first; but, after three more applications of the electric current, it became perfectly natural.

CASE XI. *Dysphonia, of One Year's standing, cured by Fourteen Applications of Galvanism Internally.* Thomas D., aged 53, a pensioner, applied at the Dispensary for Diseases of the Throat in March. He was suffering from hoarseness, which he said had affected him for more than a year, and sometimes he had no voice at all. There was considerable congestion of the larynx; the cords were seen, in the mirror, to be of a bright red colour. The patient was under treatment for three months; and various local astringents (including nitrate of silver, sulphate of copper, and a solution of tannin) had failed to produce any effect.

Galvanism was first employed on June 15th, and repeated every two days till the 29th, when the voice had greatly improved. To prevent relapse in such an obstinate case, the galvanism was continued till July 15th, when the patient was discharged cured. The congestion of the mucous membrane had also disappeared.

CASE XII. *Aphonia, of Six Months' standing, partially relieved by Galvanism applied to the Vocal Cords.* Wm. J. F., aged 37, a painter, applied at the Dispensary in April. He was suffering from complete aphonia; and congestion of the larynx, as seen with the aid of the laryngoscope, appeared to be the cause of the loss of function. After giving a fair trial to nitrate of silver, no effect having been produced, I resolved to employ galvanism. After electricity had been applied to the cords three times, the patient was able to speak in a very hoarse voice. Notwithstanding the prolonged and persevering use of galvanism, the voice did not at all improve after this. I again had recourse to nitrate of silver, and in a fortnight the voice was clear and healthy.

I have used galvanism in two other similar cases; but they are not sufficiently interesting to be related. I may observe, however, that in one instance the result was very much the same as in Case XII, the galvanism being only partially successful; while in the other case of chronic congestion of the larynx, the voice was completely restored after three applications of galvanism.

In addition to these cases, I have already recorded two* in the *Medical Times and Gazette* for February 1863; and the history of a patient under Dr. Stokes's care, on whom Dr. Smyly used my "laryngeal galvaniser", will also be found in the same journal.

A few words on the method of applying galvanism to the vocal cords will perhaps be considered as not out of place. The operation requires but little skill on the part of the operator, and still less fortitude on the side of the patient. Whether magnetic or chemical electricity be employed is not a matter of any importance; for, while I have invariably employed the former, Dr. Smyly, in his two very successful cases, used the latter.

To employ magnetic electricity properly, an assistant is required to turn the electric machine with one hand, and with the other to hold one sponge against the side

of the neck, either over the situation of the pneumogastric nerves, or directly on the thyroid cartilage. The operator should hold the laryngeal mirror with the left hand, and with the right introduce the laryngeal galvaniser below the epiglottis. He now touches the spring on the upper part of the instrument with his index finger, and the current passes directly to the cords.

The woodcut shows the instrument* very well; and it can be seen that the current does not pass beyond the metal ring (B) till the operator touches the ivory handle (I), when the spring (S) connects the two rings (A and B); and the current then passes on to its destination. The irritation of a foreign body in the larynx causes the vocal cords to become tightly approximated, and thus it renders it easy to touch their upper surfaces. By placing the point of the laryngeal galvaniser on the arytenoid cartilages, both branches of the pneumogastric may receive the electric impression.

In conclusion, I may observe that I have employed galvanism to the larynx in more than thirty cases, and that no bad effect has ever followed its use. Most patients feel the electric action more acutely externally than in the larynx, though some have told me that they felt an agreeable sensation of warmth passing down from the larynx to the scrobiculus cordis. Others, again, have described a choking and pricking sensation in the throat.

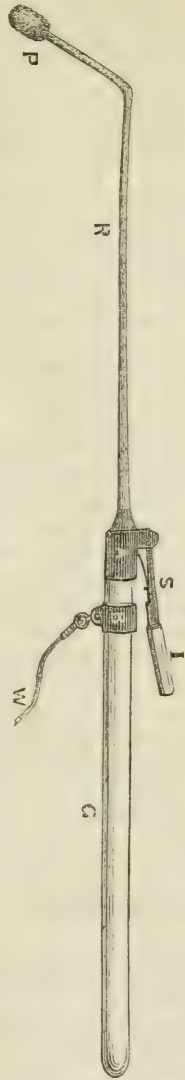
The success attending the application of galvanism to the cords in aphonia will depend entirely on the proper selection of cases suitable for treatment. The absence of any structural disease or inflammatory changes, on the one hand, and a state of impaired innervation on the other, are, of course, the features which promise the most satisfactory results from this method of treatment.

APPENDIX. The following two cases came under my care only the other day; and as they both illustrate very remarkably the value of the direct application of galvanism to the vocal cords, they are now added to the other reported cases. They both belong to that class in which "aphonia occurs as a symptom in conjunction with considerable disturbance of the nervous system."

CASE XIII. *Aphonia of Eight Months' Duration cured by One Application of Galvanism to the Vocal Cords.* Jane R., aged 23, a tall stout young woman, from Frencham, was brought to the Dispensary for Diseases of the Throat on August 24th, 1863. She was suffering from complete aphonia, loss of appetite, and considerable constitutional debility. She was not at all hysterical, according to her own account, nor did she appear to be so. She whispered to me that twelve months previously

CASE XIV. *Aphonia of Eight Months' Duration cured by One Application of Galvanism to the Vocal Cords.* Jane R., aged 23, a tall stout young woman, from Frencham, was brought to the Dispensary for Diseases of the Throat on August 24th, 1863. She was suffering from complete aphonia, loss of appetite, and considerable constitutional debility. She was not at all hysterical, according to her own account, nor did she appear to be so. She whispered to me that twelve months previously

* The "laryngeal galvaniser" is made by Mr. Krohne, 241, White-chapel Road.



* I have lately ascertained that, in one of these cases, the effect of strong solutions of nitrate of silver (applied by means of Mr. Thompson's ingenious hydropneumatic injecting instrument) was more beneficial than I had previously supposed. The "diffusive method" of employing caustic seems in this class of cases to be attended with much more decided effect than the ordinary mode of applying it with a sponge or brush.

she had a very severe sore-throat, which had been lanced and burnt with caustic by Mr. Knowles, of Farnham, under whose care she remained for five months. In December 1862, being then extremely depressed and weak, and having scarcely recovered from her bad throat, she lost her voice; and since then she had never been able to speak a word out loud. Mr. Knowles recommended change of air, and so also did Dr. Cobb (formerly of the London Hospital). After a fortnight's residence in London, the patient applied at the Dispensary in the condition described.

On making a laryngoscopic examination, the approximate action of the vocal cords was seen to be very feeble; otherwise, the larynx was perfectly healthy.

August 25th. I galvanised the vocal cords, and the voice immediately returned. It was weak at first, but soon became full and strong. I only repeated the galvanism once (on the 27th); but the voice was really restored by the first application.

CASE XIV. *Aphonia of Five Months' standing cured by One Application of Galvanism to the Vocal Cords.* Miss Gertrude S., a pretty child, aged 10, suffering from loss of voice, but otherwise healthy, was brought to me, on August 27th, by Mr. Taylor of Guildford. Mr. Taylor gave the following account of the little patient's aphonia. He was called to see her in March, when he found her sitting up in bed, and breathing excessively quickly. The physical signs did not at all explain the rapid respiration; and he was struck with its remarkably nervous character. An attack of bronchitis, in which the nervous symptoms predominated, afterwards developed itself; and on recovery it was noticed that the child had lost her voice. Various tonics were tried in vain; and change of air to Brighton (where a laryngoscopic examination was made by Dr. Ormerod) failed to restore the voice.

Finding that the larynx was quite healthy, with the exception of a relaxed state of the vocal cords, in the presence of Mr. Taylor and the child's parents I applied galvanism to the vocal cords. The voice was then and there perfectly restored; and when the little girl left me, she was able to speak in her natural voice.

Original Communications.

THE LARYNGOSCOPE AND ITS CLINICAL APPLICATION.

By THOMAS JAMES WALKER, M.D. (Lond.), etc., Surgeon to the Peterborough Infirmary and Dispensary.

IV.—DIRECTIONS FOR USING THE LARYNGOSCOPE.

In order to render my description of the mode of applying the instruments for examination of the larynx and pharynx as practical as possible, I have thrown it into the form of short rules, which will, if followed precisely, at once enable the practitioner to obtain a view of the parts.

A. For Examination of the Larynx by Unconcentrated Sunlight.

1. Place your patient, seated quite upright, on a chair of convenient height, facing a window or door through which the sunlight enters.

2. On the window-sill, or on a table between the patient and the window, place a small looking-glass at such an angle, that it shall reflect the sun's rays on to the lower part of the patient's face.

3. Your patient still sitting upright with his head inclined a little backwards, you direct him to open his

mouth as widely as possible, and to put out his tongue; you will now perceive whether, from nervousness or from not understanding what is wanted, your patient keeps the tongue in contact with the roof of the mouth; if he should do so, direct him to draw a full breath through the mouth; and, if necessary, let him, while looking at his own throat in a looking-glass, study the proper mode of displaying his fauces.

4. Now alter the position of the looking-glass which reflects the light, until the sun's rays strike on to the soft palate, the shadow of the tongue just falling on the posterior border of the velum. As soon as the light is adjusted, your patient closes his mouth until you are ready to proceed with the examination.

5. Seat yourself opposite your patient and to his right hand, your eye about on a level with his mouth, and the light passing by your right shoulder.

6. Warm the laryngoscope in the flame of a spirit-lamp, or in warm water conveniently placed at your right hand, and test its temperature on the back of your own hand or on your cheek, so as to avoid burning your patient's mouth.

7. Your patient opening his mouth as widely as possible, and putting out his tongue, take hold of this, with a napkin or handkerchief to prevent it from slipping, between the thumb and forefinger of your left hand, and draw it downwards and forwards, being careful not to use so much force as to hurt the frænulum against the lower teeth, and avoiding, also, the placing your fingers or any part of the napkin in such a position as to throw a shadow on to the fauces.

8. Introduce the laryngoscope, held between the two first fingers and thumb of the right hand, quietly into the mouth, following the curve of the back of the tongue and the palate, and touching nothing until you reach the velum.

9. The hand being steadied by resting the ring and little finger against the cheek, press the back of the laryngoscope gently and steadily flat against the uvula and soft palate and raise this, the mirror being held just far enough back to avoid touching the posterior wall of the pharynx, and its face being directed, not to either side, but downwards and forwards.

10. Simultaneously with the introduction of the mirror, direct your patient to draw a deep breath, or to say *a* in a prolonged high tone; thus you give him something to occupy his attention, and also cause him to open up the fauces and the larynx as much as possible.

11. If the preceding rules have been strictly adhered to, in any ordinary case, the epiglottis will certainly now be seen. Should it appear quite at the lower edge of the image seen in the laryngoscope, the instrument is not introduced far enough into the pharynx, and its position must be shifted accordingly.

12. The patient is again directed to utter the vowel sound *a* or *ah* in a prolonged note and a high tone; and now the summit of the arytenoid cartilages with the cartilages of Santorini, constituting two rounded nodules, should be seen behind the epiglottis; and probably deeper down, between these and the epiglottis, the vocal cords will appear. If, however, the parts behind the epiglottis be not visible, and this portion of the image appear dark, the inclination of the mirror must be altered, so that the rays of light may be thrown into the larynx.

13. It may be that no part of the image in the mirror is obscure from want of light; but, the front and edge of the epiglottis occupying the most anterior part of the mirror, immediately behind it is seen the posterior surface of the pharynx. In this case, the inclination and elevation of the laryngoscope being altered, the deeper parts may be brought into view; but the main reason why the larynx is not seen, is that the epiglottis actually overshadows it; therefore, draw the tongue more forcibly forwards, and direct your patient to utter a falsetto

note, to force a laugh or cough, and thus endeavour to alter the position of the parts.

14. Whenever the introduction of the instrument causes retching, withdraw it, and let your patient compose himself before you re-introduce it. The operator will best insure the patient's tolerance of the examination, by dexterously avoiding the touching any part of the pharyngeal wall; by pressing firmly against the velum, not touching it lightly and tickling it; by occupying the patient's attention, and directing him to take a deep inspiration, to utter a vowel-sound, to cough or to laugh, as recommended in Rule 10, whenever any tendency to retch is observed. It will, however, very seldom be found, except in the case of young children, that intolerance of the instrument in the throat prevents our getting a satisfactory view of the larynx; the great difficulty usually is, that the epiglottis intercepts the view.

15. A view of the vocal cords, arytenoid cartilages, and epiglottis, having been obtained, incline the face of the mirror to one or other side, and thus bring into view the parts situated further from the middle line, and which have been described in Part III of these papers.

16. Be careful lest, in looking into the mirror, the head be placed between it and the source of light; the right eye can be brought close up to the mouth without placing the head in such a position as to cast its shadow on the mirror. Keep also the handle of the laryngoscope, and the hand which supports it, well towards the left side of the mouth; otherwise, they will interfere with the illumination of the mirror.

B. For Examination of the Larynx by Direct Concentrated Artificial Light.

1. In a darkened room, place your lamp on a table, a little way from the edge, and at such a height that the flame shall be near the level of your patient's mouth when he is seated on a chair. Immediately in front of the lamp, place your globular condenser.

2. Seat your patient upright in a chair, with his face directed towards and exactly opposite to the lamp and concentrator, and distant from the latter from eighteen to twenty four inches, the light being brightest within this range.

3. Your patient's head being placed in position as directed in Rule 3 of Section A, adjust, by means of the screw, the level of the concentrator, until the light falls on to the soft palate.

The remaining rules, as to the position of the operator, the introduction of the mirror, and so on, are the same, whether we employ the sunlight or concentrated artificial light.

C. For Examination by Artificial Light Concentrated by Reflection.

1. Place your patient with his back towards a table, near the edge of which you place the lamp or other source of light, in such a position that the light shines over his left shoulder; or, where a lamp is not procurable, the patient being seated in a chair, you may get an assistant to hold a candle just over his left shoulder.

2. Now seat yourself opposite your patient, attach the frame supporting the reflector to your head, and adjust it so that the light is thrown on to the patient's face.

3. Having made the patient open his mouth and expose the fauces, as previously directed, move your own head nearer or further from him, until you ascertain that the back of the pharynx is in the focus of the concave reflecting mirror.

The remaining steps of the examination are precisely the same as in the examination by direct light, which method is, wherever practicable, to be preferred to that of examining by the light concentrated by the reflector; in the latter case, it must be borne in mind that the operator has, as I have already pointed out, to contend with the following disadvantages. 1. The light

obtained is actually not so bright as that obtained by the globular concentrator. 2. The operator cannot move his head to either side without removing the light from the fauces and laryngoscope; nor nearer to or further from the object he is looking at without diminishing the intensity of the illumination. 3. The operator's eye is necessarily at a greater distance from the laryngoscope, than is suited for distinct vision; and instead of having it uncovered, except by such spectacles as may be necessary to assist any defect in his own sight, the operator is compelled to look through a small orifice covered by glass.* In fact, complications are added in this mode of illuminating the fauces, which render the successful examination of the larynx comparatively difficult.

D. For Examination of the Posterior Nares, Eustachian Tubes, and Upper Part of the Pharynx.

Either of the modes of illumination described above may be adopted; and the first rules as to the position of the patient will vary accordingly. The light being so arranged as to fall on the mouth of your patient, proceed as follows.

1. His head being inclined back somewhat, let your patient, without protruding his tongue, open his mouth as widely as possible; if he be able to keep the tongue lying quietly at the bottom of his mouth, so that the fauces are freely exposed, the depressor is not required; but when the back of the tongue fills up the mouth too much, let the patient hold an ordinary tongue-depressor so as forcibly to depress the unruly member.

2. Now adjust the light so that it falls well on to the fauces, the shadow of the lower teeth falling lower than that of the tongue when this is drawn forward in examining the larynx.

3. Direct your patient to let all the muscles of the throat rest in an absolutely passive state. Any attempt on his part to open up the fauces will cause the elevation of the soft palate against the posterior wall of the pharynx, and will effectually prevent your seeing the parts situated in the upper part of the pharynx. The uvula and soft palate must hang passively forward; and if there is any tendency on the part of a patient to hold them otherwise, it is absolutely essential for the success of the examination that this tendency should be corrected. Make your patient, therefore, clearly understand what you wish him to avoid doing; and let him, watching the movements of his throat in a looking-glass, persevere until he has learned to control them.

4. Now, with the left hand, introduce the palate-spatula, previously warmed in a spirit lamp, and its temperature tested on your own skin; and with the broad blade gently and steadily raise the uvula and velum, at the same time drawing them forward, and keeping them steadily in their altered position by resting the little and ring fingers of the hand holding the spatula against the patient's cheek. The contact of the spatula with the posterior border and upper surface of the soft palate always produces a disagreeable sensation, and may cause the involuntary raising of the velum against the posterior wall of the pharynx; if so, the patient must be allowed to observe in a looking-glass the introduction of the instrument, and must endeavour to bring this reflex action under control.

5. The soft palate and uvula being raised and drawn forward, and the tongue either lying passive at the bottom of the mouth, or being held there with a tongue-depressor by the patient, introduce the small laryngoscope (the mirror should be bent, so as to be nearer a right angle with the stalk than it is when used for the examination of the larynx), previously warmed, into the

* Dr. G. Johnson has adopted the plan of placing the concave reflector on the forehead instead of in front of the eye of the operator, which is thus left uncovered. Dr. Johnson's reflector, though greatly inferior to the globular concentrator, is, I think, to be recommended before Semeleder's, or any other reflecting apparatus.

pharynx, with its reflecting surface turned upward; hold it immediately below the level of the soft palate, close upon, but not in actual contact with the back of the pharynx, and depress the handle until the plane of the mirror is much nearer the vertical than the horizontal position.

6. Some part of the posterior nares—probably the superior portion of the vomer and the middle spongy bones—should now be seen; if the upper part of the pharynx appear dark, the inclination of the speculum must be altered until it throws the light upon the nares; if we cannot see the cavity of the upper part of the pharynx at all, the view is probably obstructed by the velum being in contact with the posterior wall of the pharynx, and thus shutting off the whole of its upper part in the manner to which I have already alluded: even should the soft palate, in the first instance, be drawn well forward by the spatula, it is apt to be involuntarily raised by the patient while the attention of the operator is directed to the introduction of the speculum; and this involuntary occlusion of the upper part of the pharynx will frequently prove an obstacle to successful rhinoscopy altogether insurmountable.

7. The vomer and middle turbinated processes being brought into view, alter the inclination of the mirror, and direct its face to either side, so as to bring the orifices of the Eustachian tubes, the lower spongy bone, and other parts, into view.

As no rhinoscope—that is, an instrument combining the palate-spatula and the mirror in such a way that they may be managed with one hand—has at present been constructed of a sufficiently perfect form to be practically useful, I give no directions as to the mode of using this instrument; but it is evident that, both hands being occupied in the management of the mirror and the spatula, in the usual mode of examining the posterior nares, we cannot, while the parts are in view in the mirror, apply caustic, or adopt any other measure towards the treatment of the malady we are observing. This does not, however, render the use of the palate-spatula and speculum as above directed of no practical value; for the information gained by an ocular examination of this region may guide our general treatment, and also enable us to apply local means with more certainty than where we have never seen the part.

Although an expert in the use of the laryngoscope will rarely fail, if he follow the rules I have given, to gain satisfactory information as to the state of the larynx; a novice, having no experience of the small difficulties which may prevent a successful examination, will probably require to make several attempts before he acquires the dexterity in the manipulation of the instrument and the management of the patient, which he must possess in order to obtain such a clear and satisfactory view of the parts as will enable him to recognise them distinctly, and to determine their healthy or morbid condition. It is but fair to his patients that a practitioner should acquire this experience upon his own person and not upon theirs; and this he may readily do, either with or without the use of a special apparatus for self-observation. Of these special instruments, I have already alluded to the autolaryngoscope of Czermak and the pharyngoscope of Moura-Bourouillou.

In using the former, the apparatus is placed upon a table, opposite to which the practitioner is seated, with the small plane mirror fixed at a convenient distance from the face, at such an inclination that when his head is in position the observer can readily see the soft palate. The concave reflector should be about eighteen inches from the face, and placed at a lower level than the plane mirror, so that the reflected and concentrated light may pass unobstructed below this to the pharynx. The lamp is placed on one or other side, between the observer and the reflector, with one side of the chimney darkened or shaded by a screen, so that the direct light may be shut

off from the face and eyes of the person placing himself under examination. The illuminating apparatus being thus arranged, the practitioner will proceed with the examination of his own larynx, according to the rules given under the heading A, for examination of the larynx of another by unconcentrated sunlight.

It is, however, quite possible to make observations on one's own larynx without any additional apparatus to that required for the examination of others, beyond a small plane mirror two or three inches square, which is held in the left hand in such a position that, while it does not obscure the free access of light to the fauces, the operator can see in it the face of the laryngoscope introduced into the mouth by his right hand. For self-examination in this method, we may use either the light of the sun, which was the source of illumination employed by Garcia, in the series of observations, the publication of which gave the first impulse to the study of laryngoscopy; or artificial light concentrated by the globe condenser; or even unconcentrated artificial light. The latter will, however, be found very inconvenient.

For Self-Examination by the Sunlight. I should give the following rule. Place yourself and your reflecting mirror, or let an assistant place you, in the relative positions recommended for your patient and the mirror in the rules given under Section A; then, having your left elbow supported on a book or other convenient prop, placed on a table immediately in front of you, hold in the left hand a small plane mirror at such a height that the light passes beneath it to your fauces, and at such an angle that you have a good view of the face of the laryngoscope when placed in your throat. In the introduction of the laryngoscope, you follow the same rules as those given for its use on others; although, of course, the instrument must be held differently, and the fingers of the right hand cannot be steadied against the cheek.

For Self-Examination by Artificial Light and the Globe Condenser. Place yourself opposite the lamp in the position recommended for your patient under Section B, and let an assistant adjust the light until the fauces are brightly illuminated, the left elbow resting upon the table; in your left hand, hold the small mirror over the lower part of the globe, so that the light passes to the throat above it, and incline it, with its face directed a little upwards, so that by turning the eyes down you may see the fauces and the laryngoscope. This will be found the most convenient method of observing one's own larynx and demonstrating it to others when we do not possess the apparatus of Czermak or Moura-Bourouillou; of the latter I can say nothing from personal experience, and I, therefore, add nothing to what I said of its use, when describing it in Part III of these papers.

All the above rules I have myself constantly tested by practically applying them, and I have demonstrated their efficiency to others on more than one occasion. In order to carry out with success the directions given, a certain amount of tact and neatness of hand is requisite, but not more than every well qualified practitioner should possess; certainly not more than he will acquire by a little perseverance in the use of the instrument, and by careful attention to the minute practical points which I have endeavoured to embody in my rules.

I do not hesitate to recommend the methods of examination which I have placed first in order, in preference to that by artificial light concentrated by reflection, which I have placed third; but I have given rules for examination by the reflector equally distinct with those for illumination by direct light, as I would recommend any one of my readers who expects to have to use the laryngoscope constantly, and does not mind the additional expense of another instrument, to obtain Dr. Johnson's reflecting concentrator, and to accustom himself to examining the larynx, etc., by each of the three methods of illumination.

ILLUSTRATIONS OF THE DIFFERENT FORMS OF INSANITY.

By W. H. O. SANKEY, M.D.Lond., Medical Superintendent of the Female Department of the Hanwell Asylum.

THE following cases occurring in the female wards of the Hanwell Asylum have been under my care at various dates during the last nine years. The number of patients daily under observation has varied from six hundred to a thousand. This large number, while it affords a wide scope for a selection of cases, unfortunately occupies so much time in treating as to leave but little opportunity for keeping up a rigorous record of the details of each case; but the narratives will be here given almost exclusively from notes made at the bedside; and should any fact have to be recorded from memory, the circumstance will be distinctly stated.

The first cases will be of *Melancholia*, for the following reason. A state of melancholy is usually the first indication of mental disease. It precedes the majority of the cases of mania; and it is met with in other forms of insanity. *Melancholia*, in the opinion of several good authorities, must not be considered as a disease, a *morbis per se*; but only a condition or state of mind, or a group of symptoms included in a general term. In this sense, the word *melancholia* is here used.

A state of mental depression or melancholy, in its mildest and most transient form, is probably due to some slight mal-assimilation—or nutrition-change, as the Germans call it; perhaps dependent on some state of the blood conveyed to the cerebral organs, or on some condition of the circulation. It is certain, at all events, that a state of depression follows often upon a state of mental elation, or a prolonged mental exertion. It also succeeds the mental exaltation produced by inebriating fluids, etc. In these instances, while the immediate or proximate cause must still be considered to be in the molecular organism of the brain; the remote or the determining cause is probably a state of the blood circulating in the cerebral organ. The slighter effects, as simple depression of spirits, or the feeling melancholy in its lighter form, are not usually included under the term of insanity; but this is rather a legal necessity than a pathological truth. We usually separate these transient cases from others in which the effect is more permanent; and we call the latter only mental disease.

Constipation, long continued and habitual, would appear, in some of my cases, to have acted as the cause of the attack of *melancholia*. The following is an illustration.

CASE I. A. B., a female, aged 27, and married to a groom and gardener, was admitted in November. She was of weakly general health, and lived in a close and unhealthy part of London; and the present was the first attack of insanity. She had borne children rapidly; which were feeble and rickety, two being unable to run alone. The husband being employed away early and late, she was much alone. She was originally of lively disposition. For the last two years, she had quite altered in this respect, and had seemed absent and depressed, as though the care of the family was too much for her. She had for the same period become forgetful; would go to the shop and purchase the same article twice over in a single day. Twelve months before admission, one of the children died. She had been much worse since. Forgetfulness had increased; abstraction became more frequent; and she began to neglect her house. Six months after the loss of this child, she gave birth to another. She suckled it six weeks, and then appeared to take no more interest in it; nor in the other

children. She did not provide food for them, nor dress them, nor speak to them. She began to pace the room; walked about all night; would not go to bed. For about the last three months prior to admission, she took to reading the Bible constantly. One month ago, she began to apply various passages to herself. She accused herself of all the sins mentioned in it. Of late she had said she could never die; "if they cut her to pieces it would not kill her." For the last fortnight she had refused to eat. She became greatly emaciated, and was taken to the workhouse.

The progress of the symptoms, therefore, prior to admission, was: simple depression; abstraction; forgetfulness; alteration of affection to her children; selfishness; restlessness; religious dreads; delusion; alteration of instinct of hunger.

Predisposing Cause. There was no hereditary predisposition; she was of a somewhat excitable disposition, fond of company and pleasure. The exciting cause was family cares, etc.

On admission, she was pale and delicate in appearance; and was reported to have refused food. While in the workhouse, she took only a little gruel once during nearly a week. In conversation, she did not appear depressed, but was rather talkative. She said she went into the hospital and fancied all manner of things. Her conversation was coherent, but irrational. She said she had not eaten for a long while; "that she don't eat"—meaning that she did not require to eat. She was deaf. The conjunctive were pallid; but there was some capillary injection here and there visible. The pupils were equal and acted readily. She appeared to have some difficulty in swallowing saliva. She said she had no sore throat; the fauces were bright red. The tongue was furred; clean at the edges. Her bowels had not been open since admission. She had taken only a little wine, which she swallowed with difficulty, and some tea. There was no cough nor dyspnoea. Pulse 80, feeble.

Third Day after Admission. She had partaken sparingly of nourishment. Her bowels had not been open since admission. Three drachms of castor oil were ordered.

Fifth Day. She would not take the oil on the third day, but took it yesterday. She had taken some beef-tea—half a pint or rather more; and one glass of wine only since yesterday. The bowels had not acted. The dysphagia continued. Two blisters were applied to the throat; and five grains of calomel were prescribed.

Ninth Day. She refused the calomel when ordered. It had, however, been since given, and the bowels had acted freely. The stools were much confined, and very dark. She had not taken food well since. Pulse 90.

Tenth Day. She was slightly excited; appeared elated or astonished at her own improvement. She wanted to relate to me all the circumstances that had occurred. She said she thought she was dead. She continued to take food freely.

Twelfth to the Twentieth Days. The improvement continued. The bowels, however, were inclined to get confined. She has been to work in the Bazaar (this is a department for fine and fancy needlework, reading, music, etc.). She worked daily there, and appeared in pretty good spirits. On the twentieth day, she complained to her nurse that some one had been accusing her of something, and appeared in great grief about it. Whether there was any foundation for the complaint could not be ascertained. Her health appeared so much improved, that she was removed from the infirmary ward.

Thirtieth Day. She had a slight relapse. She appeared diffident on removal to the fresh ward, and gradually seemed to decline. At first she fell off her appetite; and for the last two days refused food altogether. She was more listless and dull; appeared confused when spoken to. The state of her bowels was not known;

she was nevertheless ordered to have cathartic pills, and to go back to her former ward. On the following day, she took her food again, but continued rather excited and talkative.

The notes from this date show gradual improvement. At first the mind seemed feeble. The memory remained treacherous up to the eighty-fourth day. She had slight variations in spirits and occasional depression to the ninety-first day. The bowels continued to show great disposition to constipation; and the constipation was several times accompanied with alteration in spirits. She took from the sixtieth day a pill composed of equal parts of aloes and mastic daily an hour before dinner, which regulated the bowels. She was discharged cured ten months after admission; and was heard of ten months afterwards, and continued quite well. The deafness has gradually left.

In this case, the depression was probably passing off at the time of admission. There had never been any suicidal propensity beyond a refusal of food, which was probably due to the state of the digestive organs. The affection was not hereditary.

The next case, very briefly narrated, is an illustration of the occurrence of violence and excitement, which is frequently exhibited in some stage of cases of melancholia. It also is another example of the effect of purgatives.

CASE II. A. C., female, aged 43, was admitted in September. She was a domestic servant, the daughter of a butcher. The following account was gleaned from an aunt. The patient had been in a very desponding way all the summer. Her only sister had decided on going to New Zealand, and had since gone. Soon after her sister's death, the patient left her situation, and went into lodgings. At this time, the cause of her throwing up her place was put down to a quarrel with her fellow-servants. About the time when she quitted her place, she began to have various fancies about her health; said she had the yellow jaundice and the black jaundice; that she was going to be buried alive; she was full of fancies of what was going to happen to her. Latterly, she said her aunt was an evil spirit who filled her mind with all sorts of things; she imagined that everybody was going to injure her; screamed when she saw a knife in any one's hand, and said they were going to cut her throat.

She had been violent towards the aunt, and attacked her under the delusion that the aunt was "a walking devil." She was taken to the workhouse on account of her violence; where, it is reported, she was very excitable, talked at random and incoherently, frequently refusing her food; declared she could not swallow; and other times she swallowed without difficulty; said that the people over in that room (pointing to a blank wall) treated her shamefully, and prevented her from sleeping.

Besides the distinct evidence of depression, there was, therefore, that concentration of the attention on herself and her bodily health which at first was approaching to a state of hypochondriasis. This condition, with the exception of some false perceptions about the power of swallowing, had, however, nearly passed away prior to admission. Whether the calling of her aunt a "walking devil" was mere abuse, or whether the patient actually entertained the belief, which would make it a delusion, is a little uncertain. Her previous health had always been delicate, but she had never had any prolonged indisposition. Her natural disposition was retiring, her temper quick. She retained her situations in service for short periods only, perhaps two years at most. She had always been steady, well conducted, and temperate.

Predisposing Cause. Her father died a lunatic. His disease was said to have been induced by drink. The exciting cause was as above.

State Two Days after Admission, or about the nine-

tieth of the disease. She was emaciated, feeble, and pallid. She had several slight bruises about the body. Her hair and irides were dark; her features hard and angular. There was an expression of irritability or acerbity. On first admission, she was dull and taciturn, but became, after a few hours, restless, fidgety, and fretful. She would answer questions put to her, and answered coherently, though with obvious reluctance. The tongue was moist and furred. The bowels had not acted for several days. She had no appetite. The belly was retracted and hard. She had only taken since admission (two days) fluids in small quantity. She said she had no cough now, but used to have it, and violent perspirations. There was some expectoration, which was purulent; and she said it rose in her throat. There were no abnormal physical chest-signs. Pulse 80, regular. She was ordered to have meat diet, and two glasses of wine daily; and to get up, if she preferred it.

Third Day of Treatment, or 93rd Day of Disease. She was up. She said she did not eat, but did. She persisted that she could not swallow. She was depressed, fretful, and peevish, and very feeble. The state of the bowels was doubtful.

95th Day. She refused to eat. Tongue red. She said the bowels did not act. The nurse had reason to believe they did. She was more feeble.

100th Day. She complained that she could not swallow; that the bowels did not act. She ate but little. A common enema was ordered.

101st Day. The enema acted slightly only. She complained of a stoppage in the throat; was restless and querulous, and greatly depressed. Every trifle was aggravated into a grievance. The tongue was moist. She refused all solid food, and said she had not taken any. She had no pain, but had a sense of heat at the back of the head. The enema was repeated.

102nd Day. The bowels acted scantily, a few scybala only being expelled. The appetite was indifferent. She complained of the light. The enema was repeated.

105th Day. The bowels were slightly relieved; scybala were discharged. The enema was repeated.

106th Day. The enema acted very freely. She said it did not. She ate her dinner voluntarily. The enema was again ordered.

108th Day. The bowels were again freely opened. She looked clearer; said she was no better, but ate a good meat dinner.

110th Day. She complained still of the throat. She was ordered to take aloes and gentian mixture three times a day.

121st Day. She had taken the medicine irregularly. She still said the bowels did not act, and that the gullet was stopped up. She was still fretful and peevish, and cried. The aloetic mixture was continued.

128th Day. There was slight and gradual improvement generally. She had begun to occupy herself.

133rd Day. The bowels were still disposed to be confined. The mixture was continued.

143rd Day. She had gradually improved; had lost her fancies; ate regularly and well; and was gaining flesh. She continued daily to recover strength; became active, cheerful, and industrious; was discharged "on trial" on the 150th day, and finally on the 178th day of the disease.

The discharge of patients "on trial" means that permission is given to them to be absent from the asylum and reside with their friends, usually for one month. Should relapse occur, the friends are directed to bring them back to the asylum, and they are received without the necessity of fresh certificates; or, should they continue well on their return at the expiration of the time named, their ultimate discharge is signed by the magistrates, on the certificate of recovery from the medical officers.

Reviews and Notices.

A MANUAL OF OPHTHALMIC SURGERY; being a Practical Treatise on the Use of the Ophthalmoscope in Diseases of the Eye. By JABEZ HOGG, Senior Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital, etc. Third Edition, rewritten and enlarged. Pp. 296. London: 1863.

THE introduction of the ophthalmoscope as an instrument of diagnosis in diseases of the eye has, within the last ten years, almost revolutionised ophthalmic surgery. So great has been the increase in our power, not only of ascertaining the presence of morbid states in the eye, but of determining their true character instead of being obliged to class under one name diseases of different character, and so great, consequently, has been the improvement in our methods of treatment, that it is not surprising that ophthalmic surgeons should be induced to write special treatises on the application of the ophthalmoscope. The author of the present work has, from an early period after the introduction of the instrument into England, made it the subject of study; and his position as one of the surgical officers of a large ophthalmic hospital has given him ample opportunities of testing its value. In the successive editions of the work before us, he has systematised and published the knowledge which he has acquired, filling up deficiencies by materials gathered from the study of British and foreign writers.

The fact that the book has reached a third edition would indicate that it must be too well known to surgeons to demand from us an account of its contents. It will, therefore, be sufficient merely to say that the author begins by noticing the Practical Advantages and the Invention of the Ophthalmoscope, describes various forms of the instrument, and gives an account of the optical apparatus of the eye. He then goes on to describe the ophthalmoscopic appearances of the eye in health and in disease; and gives an account, in succession, of the diseases of the cornea, lens, vitreous body, retina, choroid, and optic nerve, as observed with this instrument.

The book is illustrated by many coloured engravings and woodcuts; and at the end are specimens of Jäger's "test-types", and of the horizontal, vertical, and oblique lines proposed by Mr. Wharton Jones for testing the presence of "astigmatism", or the loss of power to perceive upright and horizontal lines with equal distinctness.

Mr. Hogg's book is one of those which ought to be in the possession of every surgeon who is interested in the treatment of diseases of the eye.

ON THE DISEASES, INJURIES, AND MALFORMATIONS OF THE RECTUM AND ANUS: with Remarks on Habitual Constipation. By T. J. ASHTON. Fourth Edition. Pp. 411. London: 1863.

THIS edition of a valuable practical work has, the author informs us, undergone careful revision; and some portions have been rewritten. The book is too well known to require us to say anything about it, beyond expressing our commendation of it as the production of a man experienced in the observation of the diseases of which he treats.

British Medical Journal.

SATURDAY, SEPTEMBER 19TH, 1863.

THE DISCUSSION ON VIVISECTIONS.

OUR readers are aware that the French Minister of Commerce, etc., submitted to the Academy of Medicine documents supplied to him by a London society, and, at the same time, addressed to it the following questions:—

"1. Is there any foundation for the complaints made by the members of the Protection Society, as regards the practice of vivisections in France?"

"2. Are there grounds for taking them into consideration?"

"3. Can anything be done, and in what degree?"

A Committee of the Academy examined these questions, and issued a report; but it did not answer the simple questions put to it. A discussion on the report has naturally taken place in the Academy itself: and has given rise to some very interesting remarks. M. Dubois, who was himself one of the Committee, refused to draw up the report, though requested to do so, because he differed somewhat in opinion on the subject of vivisections from many of his associates in Committee. He, therefore, reserved for himself the liberty of speaking his mind freely on the subject before the Academy. His conclusions are well worthy serious attention. They seem to us to contain all that can be rightly said in favour of vivisections, and to put the matter on its true and proper footing. The greatest praise is due to M. Dubois for having had the courage to express his opinion so boldly and openly. We may add that, however intemperate may have been the language of the Society for the Protection of Animals, it is manifest, from M. Dubois's remarks, that its interference was not uncalled for in the name of humanity.

In the first part of his speech, M. Dubois demolished the work of the reporter, showing that it did not answer the questions of the Government, and left things exactly in their previous state. He then proceeded to give his opinion as to what reforms should be made in the practice of vivisection. The greatest physiologists, he remarked, such as Harvey, Pecquet, Aselli, Haller, were parsimonious and discreet in their use of vivisection. To-day we have before our eyes a very different spectacle.

"Under pretence of experimentally demonstrating physiology, the professor no longer ascends the rostrum; he places himself before a vivisection table, has live animals brought to him, and experiments. The habitual spectators of the physiological demonstrations at the School of Medicine, the College of France, and the Faculty of Sciences, know how experiments are made on the living flesh, how the muscles are divided or cut, the nerves wrenched or dilacerated, the bones broken or methodically opened with gouge, mallet, saw, and pin-

cers. Among other tortures, there is that horrible one of the opening of the vertebral canal or of the spinal column, to lay bare the membranes and the substance of the marrow; it is the sublime of horror. One needs to have witnessed that sight thoroughly to comprehend the real sense of the word vivisection; whoever has not seen an animal under experiment (it is the term in the laboratory) cannot form an idea of the habitual practices of the vivisectors. M. Dubois drew an eloquent picture of these practices, become usual in physiological amphitheatres, in the midst of blood and of howls of pain; and he showed that, under the dominant influence of the vivisectors physiological instruction has gone out of its natural road. Himself an eminent pathologist, he treated without ceremony the unjustifiable pretensions of those innovators who, regardless at once of the principles of physiology and of those of pathology, try to transport clinical surgery to the table of vivisection."

M. Dubois, indeed, was so pungent in his censures, that some of the academicians left the hall without awaiting the end of his discourse. The veterinary part of his audience heard him to the end; and it is to be hoped, profited by the picture he drew of the sight that met his eyes on his first visit to Alfort. M. Renault, director of the establishment, took M. Dubois into a vast hall where five or six horses were thrown down, each one surrounded by a group of pupils either operating or waiting their turn to do so. Each group was of eight students, and matters were so arranged that each student could perform eight operations, so well graduated that, although the sixty-four operations lasted ten hours, a horse could endure them all before being put to death. Although unwilling to hurt the feelings of his humane host, M. Dubois could not help letting slip the word "atrocities." "Atrocities, if you please," replied M. Renault, "but they are necessary." "What!" exclaimed M. Dubois, "sixty-four operations and ten hours of suffering!" M. Renault explained to him that this was a question of finance, and that if more money were allowed the horses might be kept only three or four hours under the knife. M. Dubois stated that, it was true, fewer operations are now performed, and that horses are kept less time under the hands of experimenting students. But he declared that he never should forget the sight he witnessed at Alfort. Some of the horses were just begun upon; others were already horribly mutilated; they did not cry out, but gave utterance to hollow moans. M. Dubois, supported by the authority of many veterinary surgeons, demands that these practices should be discontinued. Dr. Parchappe, who spoke afterwards, agreed with M. Dubois. He said:

"That veterinary surgery might content itself with what suffices to human surgery. Experiments on animals are in no way indispensable to completely efficacious instruction in physiology."

M. Dubois, after showing the inconsequent character of the report, wound up by laying his amendments to it on the table.

"Your resolutions," he said, "contain the most con-

demnatory avowals. In recommending that vivisections should be practised with reserve, you admit that they are at present practised indiscreetly; if, again, you ask that they should only be resorted to for some distinct object, you acknowledge that they are practised unreasonably and without a clear object in view; in recommending that they should be performed only under proper surveillance, you lead all the world to suppose that they are now practised without control."

The following were the resolutions proposed by him as amendments:—

"1. The Academy, without dwelling on the injurious form of the documents that have been submitted to it, acknowledges that abuses have been introduced into the practice of vivisection.

"2. To prevent these abuses, the Academy expresses the wish that, henceforward, vivisections may be exclusively reserved to the research of new facts or the verification of doubtful ones; and that, consequently, they may be no more practised in the public or private courses (of lectures) for the demonstration of facts already established by science.

"3. The Academy equally expresses the wish that the pupils at the schools of veterinary medicine may henceforward be exercised in the practice of operations on dead bodies, and no more on living horses."

The discussion on vivisections has been concluded with the passing of a resolution proposed by M. Gosselin, which leaves the matter where it was. "The Academy declares that the complaints brought forward by the Society for the Protection of Animals are without foundation; that no notice need be taken of them; and that the performance of vivisections and of surgical operations, as practised in the veterinary schools, should be left to the discretion (*sagesse*) of men of science." Every one who has followed this debate must be aware that the resolution is what our French friends call a *non-sens*; that it is, in fact, entirely opposed to the facts elicited in the discussion. Almost every speaker except the veterinaries put in a protest, more or less strong, against the practice of surgical operations in veterinary schools; and again and again was the word "atrocious" applied to them. We learn, moreover, that "this mode of instruction" was adopted in 1761, so that for one century these "atrocious" operations have been practised on animals in French veterinary schools; and yet the Academy decides that the complaints on this score are without foundation, and that men of science in this matter need no interference! The conclusion, we admit, surprises us, and seems, indeed, more like the result of pettishness than the expression of bold and scientific sentiment. The Academy was evidently much annoyed at the language of *perfid* Albion, and annoyed that the complaints should have come from this side of the water. The French medical press has, in fact, said as much; but has properly added that, however impertinent the language, it was not the business of a great scientific body to be disturbed by words; their duty was to ascertain if there were any truth in the facts alleged. We are surprised, moreover, that in the debate no allusion

was made to the performance of surgical operations on living animals, as performed at the Ecole Pratique—the operations practised by medical students, just as at Alfort by veterinary students. At all events, we may be sure that, however much the academicians may snub the affair, the discussion cannot fail to have beneficial results. The Society for the Protection of Animals may learn a lesson from all this. Had it been reasonable in its efforts and language, it might have met with the assistance instead of the opposition of the Academy. It proposed that which was manifestly the conclusion of its own ignorance and bigotry, and did it in an insulting way; and has, therefore, been snubbed by the Academy—not much, we admit, to the credit of the Academy.

SMALL-POX.

It is satisfactory to know that the epidemic of small-pox, with which the metropolis has been visited since the commencement of the present year, appears to be on the decline. It reached its climax in the month of May, the number of deaths for the week ending May 9th being 71, and for the four weeks ending May 30th, 268. The number of deaths for each of the four weeks of August was 49, 45, 39, and 31; the total for the four weeks being 164. For the first two weeks of September the numbers have been only 29 and 28. It is to be observed, however, that the disease is still far above its ordinary prevalence; and that the number of deaths increased considerably after the week ending July 25th, when it was only 34, and when the Registrar-General stated that there was "reason to hope that the further spread of small-pox in the metropolis had been checked." Some idea as to the extent of the present epidemic may be gathered from the following facts. In 1861, the number of deaths from small-pox registered for the entire year was only 217; whereas the number for the first eight months of the present year has been no less than 1600.

From the following table, which shows the number of deaths from small-pox registered annually since 1847, it is obvious that the disease has at no time been so prevalent for at least sixteen years.

Deaths from Small-Pox in London.

Years.	No. of Deaths.	Years.	No. of Deaths.
1847	955	1855	1039
1848	1620	1856	531
1849	521	1857	156
1850	499	1858	242
1851	1062	1859	1058
1852	1159	1860	898
1853	211	1861	217
1854	694		

Our medical officers of health ought to bestir themselves, for we would have expected a different result from the great attention bestowed on sanitary matters of late years. The great prevalence of small-pox during the present year can only be attributed

to the neglect of vaccination, or to the carelessness with which the operation is performed.

In connexion with some remarks which we had occasion to make on the subject of scarlet fever in our last number, it may be interesting to call attention to the much greater mortality produced by this disease than by small-pox. During the fifteen years (1847-1861), the number of deaths from small-pox in the metropolis was only 10,862, whereas that from scarlet fever was 38,890. Again, in the present year, although small-pox has been so unusually prevalent as to have created a panic, it has only destroyed 1600 lives up to the end of August; whereas scarlet fever during the same period has destroyed no fewer than 3408, and yet has attracted little notice.

DEFECTIVE VACCINATION.

THE Report on Vaccination for 1862, issued by the medical officer of the Privy Council, is another tribute to the genius of Jenner—another justification of his great discovery, if one were wanting. Whoever reads this Report, however ignorant he may be of medicine, will find enough in it to show cause for the many outbreaks of small-pox which are continually occurring. The Report is founded on the results of an inquiry made by Drs. Stevens, Sanderson, and Buchanan, in different parts of England and Wales. It shows distinctly that the present machinery for performance of vaccination is an enormous failure. The registers are so kept, that it is impossible to learn the number of persons who have been vaccinated. Again, the amount of vaccination varies greatly in different districts. In some work-houses, for example, and elementary schools, unvaccinated children were found to the extent of 20 to 34 per cent. and upwards. The fault of this lies with the authorities mainly, and in part with the parents. There are no proper arrangements made for the performance of the operation. Boards of guardians are most neglectful in not having contracts made (as enjoined by law), and in seeing them carried out. Then, again, there appears to be no regular method in the mode of performing the operation, nor with regard to the choice of lymph. Vaccination is often unskilfully and defectively done, and the matter used too old and inefficacious. The quality of public vaccination is very defective, as well as the quantity of it. Only one-half of the vaccinated (so-called) are properly secured against small-pox. The result of all this inquiry is highly satisfactory in one sense; viz., as demonstrative of the power of man over the spread of small-pox. We have here the causes, or one of the chief promoting causes, of the spread of small-pox clearly brought before us; viz., our own neglect and carelessness. This prevention of diseases of a specific character is

manifestly the main treatment of them—the all-important. When once they have got possession of a man, the control which medicine has over them is comparatively *nil*; they must run their course. This Report will probably lead to a reconsideration of the subject of compulsory vaccination by the legislature; and we would suggest to those of our readers who are interested in the matter personally as vaccinators, that they should take the opportunity of bringing forward their griefs in reference to the payments made by boards of guardians for vaccination. Let them, if they can, show that one defect in the proper carrying out of vaccination lies in the too often wretched pay of those called on to do the work, and make a demand for proper remuneration. We would on this point suggest, that surely there must be some one fair and equitable sum for performance of vaccination, to which medical men are entitled. The different fees, from 1s. upwards, paid in different districts, indicate that the proper sum is not yet discovered. Why should not some influential public body advise the Government on this head, and recommend what is a fair remuneration. There also appears, we must confess, something degrading to the profession and wrong in the fact of payments being made for successful cases only; and for the manifest reason, that the most skilful operator is not always successful. Fancy this no cure no pay system carried out generally in the practice of medicine! But if it be right in one case, why not in another? Some of our medical brethren at Croydon distinctly stated that one cause of the defective performance of vaccination was the lowness of the sum paid for the operation. If this be really a cause, it should be explained to the legislature.

THE WEEK.

THE telegram tells us that Professor Henderson of Edinburgh has been summoned to Dublin to hold a consultation with the medical attendants of his Grace the Archbishop of Dublin. That Dr. Whateley should summon to his aid homœopathic practitioners is comprehensible enough, inasmuch as he has, for the best part of his life, been the highest and most constant patron of Mesmerism, clairvoyance, and other species of quackery and delusion. We simply refer to the telegram, because it is important to the profession to know, especially in such a prominent instance, that no practitioner of medicine condescended to play a part in the consultation alluded to. Our brethren in Dublin have assumed a particularly prominent position in the denunciation of consultations with homœopaths; and we need hardly remind our readers, did, in consequence, bring down on their heads the denunciations, in no mild terms, of this very archbishop.

They therefore stand committed to the profession to do their duty manfully and honestly in such a case as this. We have no reason to doubt that they will, in fact, give the profession full satisfaction in the matter; and, until we hear to the contrary, we shall assume that the professor of homœopathy met in consultation men only of his own particular way of thinking.

OUR President's proceedings at Bristol are thus alluded to in the *Wiener Medizinische Zeitschrift*:

"Dr. Symonds is one of the most accomplished and learned physicians of Bristol. How happy the Association was in its election of him, was shown by the splendid and highly philosophic address delivered by him at the opening of the meeting; by the tact and energy which he displayed during his three days of presidency; by his hearty and magnificent hospitality; and by the spirited discourses with which he prefaced the toasts as chairman of the banquet."

IN the last number of the *Social Science Review*, Dr. Richardson calls attention to the "Greek fire", lately brought into especial notice through the siege of Charleston.

"The construction of modern 'liquid fire,' he says, 'is based on simple scientific principles. I think that it might be so formed that it would actually burn under water. The principle is this: a rapidly oxidisable substance is suspended for a time through a liquid, in which it is held innocuous so long as the two are confined together, but from which it is separated spontaneously when both are set free in the open air. The modern chemist who first brought liquid fire into notice was Mr. Wentworth Scott. Mr. Scott suggested the principle about eleven years ago, and during the Russian war he was untiring in his efforts to get it practically into use in our army and navy. An official board received Mr. Scott, heard his plans, nibbled at his idea, and then repudiated it. After tantalising Mr. Scott, our circumlocutionists became acquainted with another gentleman who proposed a liquid fire, but who, I believe, in the end was gently dropped also—I mean Captain Disney. At last, that which the English nation, or rather Government, refused to study as a means of warfare, has been turned to practical account in America."

The remarks of our learned associate are highly interesting. It is problematical, however, whether Greek fire, or any material so called, has been actually employed in the siege of Charleston. General Beauregard makes no allusion to it.

WE are glad to hear that the family of the late Mr. Davies, medical publisher, of Princes Street, Leicester Square, have made arrangements with Mr. Hardwick to carry on the business. Mr. Davies' sudden death has, we need not say, been a sad and grievous loss to his family. Mr. Davies is well known to the profession as a most deserving and honourable minded man. He passed many years of his life in the service of Mr. Churchill, and a few years ago started in business on his own account. His steadiness and honourable conduct won him the esteem of

the profession, and, had he survived, would have ensured for him complete success. We sincerely trust that his family may still reap the reward due to his merits.

M. Seguin denies that marriages of consanguinity have necessarily a tendency to produce diseased offspring. He relates the results of ten marriages which have occurred between his own family and the family of Montgolfier. Eight of these marriages were between cousins-german, and two between uncles and nieces. Between 1812 and 1858, sixty-one children have issued from these unions, of whom forty-six are alive. No case of deaf-and-dumbness, of hydrocephalus, of stuttering, or of six fingers on the hand, has been observed among them. M. Seguin concludes that, when there exists any constitutional tendency to disease in a family, the tendency to its development is increased in the offspring by consanguineous marriage; but that, in alliances between members of a family endowed with a good constitution, there will be augmentation of the vital forces in the offspring. This is, in fact, just what is observed in animals whose breed is improved by man. M. Flourens remarked on the subject, that it is always well to study long before publishing, and that nothing has hitherto been advanced on the subject of consanguineous marriages worthy of serious consideration.

M. Le Verrier says that the Parisian complains unjustly of the heat of this year. It was hotter in 1857 than in 1863. The thermometer at the Observatory has not been higher this year than 35° cent., whilst in 1857 it was as high as 38° cent. What made the heat appear so great was the sudden rise of the thermometer in one day from 30° to 35°. The most remarkable fact is the continuation of the long drought. Every thing is so dry, says the Astronomer Imperial, that the rain cannot fall. The power of absorption is so great, that the vapours are taken up as soon as formed.

M. Berthelot tells us that the principles which give to wines their vinous flavour may be isolated by shaking the wine with ether, and evaporating the ether at a low temperature, without the contact of air. An extract is thus obtained whose weight is less than one-thousandth of that of the wines. The vinous flavour and the bouquet are concentrated in this extract, which is rapidly decomposed by exposure to the air.

ROYAL COLLEGE OF PHYSICIANS. Dr. Alderson, treasurer of the College of Physicians, acts officially for the President during his absence.

YELLOW FEVER. The Portuguese Board of Health have declared the port of Loanda to be considered infected with yellow fever since July 2nd.

Progress of Medical Science.

SLOWNESS OF THE PULSE IN THE PUERPERAL STATE. M. Blot gives the following summary of his observations on this subject, in a memoir read before the Academy of Medicine in Paris. 1. In healthy parturient women, there is generally observed a more or less marked retardation of the pulse. 2. The frequency of this phenomenon varies necessarily with the state of the health. In the physiological state, the retardation of the pulse appears to bear a general relation to the uterine depletion; its degree alone varies. It does not depend on the disposition, peculiar to some females, to have ordinarily a slow pulse. In the cases which have come under M. Blot's observation, he has been enabled to ascertain, by subsequent examination, that in the non-puerperal state their pulse was of the ordinary frequency. 3. The degree of retardation varies much. In three of M. Blot's cases, the pulse fell to 35 in the minute; it most commonly varies from 44 to 60. Food has no manifest influence, as was proved in twenty-one cases observed at the Hôtel Dieu. 4. Retardation of the pulse is more frequent in multiparæ than in primiparæ; this, M. Blot thinks, may be explained by the greater frequency of puerperal accidents in the latter. 5. The duration of the retardation varies from some hours to ten or twelve days. It is generally most prolonged in cases where the amount of retardation is greatest, unless some diseased complication of the puerperal state supervene. 6. The progress of the retardation is almost always the same; it ordinarily commences within the first twenty-four hours after delivery, increases, remains stationary for a time, and then gradually disappears. It often persists, even in a very marked degree, during the period which is described (often improperly) as milk-fever. 7. The duration of labour does not appear to have any notable influence on its development or on its degree. On the other hand, the least pathological disturbance prevents its production or causes its disappearance. It occurs after abortion, and after spontaneous or artificial premature delivery, as well as after delivery at the full term. Uterine discharges, however copious, do not cause its disappearance; with hæmorrhage, the case is generally otherwise, but sometimes the retardation still persists after hæmorrhage that has not been too copious. 8. The retardation of the pulse is notably affected by the position of the patient. 9. Retardation of the pulse is a very favourable prognostic sign. It is only met with in women in good health. In hospital practice, its frequent occurrence indicates an excellent sanitary condition; while its rarity should cause the physician to dread the approach of some of those morbid conditions which so often prevail in the epidemic form. 10. The cause of the retardation of the pulse is not to be sought in a kind of nervous exhaustion. Researches with the sphygmograph, which M. Blot has made in conjunction with M. Marey, shew plainly that it is connected with an increase of the arterial tension after delivery. (*Gaz. Méd. de Paris*, 1 Août, 1863.)

SENILE DEMENTIA. At the end of an elaborate memoir on senile dementia and its difference from general paralysis of the insane, M. Marcé, of the Bicêtre, gives the following conclusions. 1. Senile dementia does not constitute a distinct morbid state. It is an *ensemble* of symptoms connected with various organic affections of the brain, and especially with apoplexy and softening. 2. It consists of two orders of symptoms; some affecting motor power, which is more or less abolished; others affecting the intellect, of which the principal lesion is gradual weakening, to which are superadded, as accidents, isolated delirious ideas, or maniacal

or melancholic delirium. 3. The disturbances of the motor function are always explained by the existence of organic lesions in the course or at the origin of the motor fibres; while to the impairment of the intellect correspond atrophy of the cerebral convolutions, fatty infiltration and more or less complete obliteration of the capillaries, and atheromatous degeneration of the nerve-cells and tubes. 4. While it offers numerous points of contact with general paralysis, senile dementia may be distinguished from it, in the majority of cases, by clinical signs. In a pathological point of view, both these diseases offer, as a common terminal result, atrophy and fatty degeneration of the nerve-tubes and cells. But, in general paralysis, this atrophy is consecutive to a plastic exudation which, poured out around the capillaries, produces adhesion of the pia mater to the cortical substance, diminishes the calibre of the vessels which it compresses, and thereby presents an obstacle to the circulation of the blood. In senile dementia, on the other hand, the obliteration is a consequence of atheromatous deposits, which are spontaneously produced as a result of advanced age and of a diminution of the assimilative power in the capillaries. These two states, then, differ widely in their nature; one is, if not inflammatory, at least exudative in its origin; the other is an arrest of nutrition. (*Gaz. Méd. de Paris*, 1 Août, 1863.)

OPHTHALMIA PRODUCED BY "SULPHURING" VINES. In the South of France, the operation there practised of dusting the vines with sulphur has produced a large number of cases of ophthalmia; and M. Bouisson has made on this subject a communication to the Academy of Sciences in Paris. The workmen attacked with this affection have the eyes red, lacrymose, and swollen; they feel a pricking pain, especially towards the middle of the day, when the heat, and the direct and reflected light of the sun are most intense. They complain of photophobia, and of pains radiating towards the forehead. This irritation is diminished by rest at night and by washing with cold water. But the irritation is reproduced by its cause; and its repetition soon brings on more or less intense ophthalmia, which manifests itself in the following forms. 1. The most common form is inflammation of the caruncula lacrymalis and of the semilunar fold of the conjunctiva. On examination, particles of sublimated or triturated sulphur, enveloped in mucus, are found at the inner angle of the eye. 2. A more serious form of the disease is a true conjunctivitis; ordinarily acute, without, however, reaching the suppurative stage. It very rarely produces patches on the cornea or other severe disorders. In unhealthy subjects, the disease assumes a chronic form, takes the characters of tarsal ophthalmia, and produces lippitude and falling off of the eyelashes. 3. A third form is accompanied by subconjunctival ecchymoses. The treatment is preventive and curative. The preventive means consist in the choice of the form of sulphur to be used, in the use of veils or spectacles, and in the employment of hygienic measures after the operation. The curative means are those of ordinary ophthalmia. (*Bull. Gén. de Thér.*, 30 Août, 1863.)

INCOMPLETE HEMIPLEGIA WITH HEMICHOREA. M. Bouchut has lately had under his care in the Children's Hospital at Paris, a patient having chorea of one side of the body with incomplete hemiplegia. Choreia limited to one side is not of ordinary occurrence; and its presence always gives reason for inquiring as to the presence of brain-disease, which occurs more frequently in connection with it than with ordinary chorea. And, when the hemichorea is accompanied by hemiplegia, the presumption in favour of a material organic cause is still stronger.

The patient, a little girl aged 11, was admitted on June 10th, and discharged cured on July 6th. She or-

dinarily had good health, had never had convulsions, and had no hereditary predisposition to nervous affections. Three weeks before admission, while skipping with a rope, she fell; her head striking the ground violently. She was unconscious during three quarters of an hour; and had for several days a small ecchymosis on the right frontal region. From the day after the accident she had irregular choreic movements of the left side of the body; there were double vision without squinting, severe frontal headache, noises in the ears, slight deafness, and loss of memory, so that she almost immediately forgot what was said to her. Her appetite, however, was good; and she had not kept her bed for a single day. On admission, she still had pain in the head and double vision; but she had lost the deafness and regained her memory. She was lively, very intelligent, and in good condition; there were no febrile symptoms. Choreic movements existed in the upper and lower right limbs; but the face was unaffected. The hand was weak, and grasped objects feebly. The arm could not be raised towards the head higher than the eye. The patient could not stand on the right foot, nor lift the leg of that side as high as the other. In walking, the right leg dragged a little; and the skin of the entire right side was in a state of partial anæsthesia. Sulphur baths were administered daily. The improvement was rapid from the first; the diplopia and headache disappeared, and were followed by the paralysis of motion, the chorea, and the anæsthesia. On the fifth day, the child was convalescent.

In M. Bouchut's opinion, the symptoms were the result of cerebral disturbance and of partial congestion produced by the fall. He attributes the removal of the congestion to the influence of rest rather than of the sulphur baths. (*Gaz. des Hôpitaux*, 22 Août, 1863.)

A NEW HEMOSTATIC. Dr. Janssens has called the attention of the Brussels Medical Society to a new hæmostatic proposed by Professor Piazza of Bologna. Repeated experiments have shewn him that the alkaline chlorides render the clots formed by perchloride of iron much more compact, more homogeneous—in a word, more fibrinous. Hence M. Piazza has conceived the idea of mixing solutions of perchloride of iron and pure chloride of sodium, as in the following formula:—Pure chloride of sodium, 15 grammes; neutral solution of perchloride of iron (30 degrees), 25 grammes; distilled water, 60 grammes. The chloride of sodium is dissolved in the water; the solution is then filtered, and the perchloride of iron is added. It is said that this hæmostatic has been successfully employed in St. John's Hospital at Brussels by MM. Rossignol and Janssens. It is not liable to produce violent local irritation, the perchloride of iron being diluted, while its efficiency is not impaired. (*Bull. Général de Thér.*, 15 Août, 1863.)

NEW METHOD OF PREPARING SUBNITRATE OF BISMUTH. The bismuth is dissolved in nitric acid in the ordinary manner; the impurities are then separated, the mixture is warmed in a water-bath, and 80 grammes of alcohol are added to each 120 grammes of bismuth. Brisk effervescence immediately takes place; and ethereal and nitrous vapours escape. The mass is then stirred forcibly with a glass rod, until nearly dry, which takes place in a few minutes; 80 grammes of alcohol are again added, and effervescence again occurs, but less briskly than before. Reaction having now entirely ceased, the mass is warmed gently until it has assumed the appearance of a more or less fine powder. It is then triturated in a porcelain mortar, thrown on a filter, and washed with distilled water. According to M. Smedt, this process gives 181 grammes of pure white subnitrate of bismuth from 120 grammes of the metal. (*Bull. Gén. de Thér.*, 15 Août, 1863.)

DRESSING OF WOUNDS. M. Maisonneuve employs as a dressing to wounds, compresses soaked in glycerine either pure or holding in solution one-thousandth part by weight of phenic (carbolic acid). When a wound assumes an unhealthy aspect; or when the pus seems about to become altered in character; as well as in cancerous, atonic, or varicose ulcers, the dressing applied consists of glycerolate of phenole—i.e., glycerine holding phenic acid in solution as above described. M. Maisonneuve believes this glycerolate to be a better disinfectant than permanganate of potash. (*Jour. de Méd. et de Chir. Prat.*, Août 1863.)

SUTURES IN THE OPERATION FOR HARE-LIP. M. Giralès has for some time used, in treating cases of hare-lip, a simple suture of silver wire. The result, he says, has surpassed his expectation; and hence, whatever be the age of the child, or the amount of deformity, he uses the simple in place of the twisted suture. The advantages which he recognises are the following:—1. The silver wire suture allows of a more regular and exact coaptation of the lips of the wound; 2. Its application is easy; 3. It does not constrict the tissues as the twisted suture does; 4. It may remain for ten, twelve, or fifteen days. In some cases, he has not removed the sutures until cicatrisation has been completed. In performing the operation, he uses small fine needles. The whole thickness of the lip, from skin to mucous membrane, is traversed; and the needle is brought through the opposite side from the mucous membrane to the skin. The projecting ends of the wire are then twisted so as to bring the edges of the wound together. (*Bull. Gén. de Théér.*, 15 Août, 1863.)

TREATMENT OF HYDROCELE. M. Maisonneuve treats hydrocele by nitrate of silver in the following manner. A stick of nitrate of silver and an ordinary probe are held together in the flame of a lamp, so that the nitrate is fused, and a drop adheres to the end of the probe. The contents of the hydrocele are evacuated by means of an ordinary trocar. The probe, having been well wiped to free it of the deposits from the flame, is then introduced through the cannula into the tunica vaginalis, and rapidly moved three or four times over its surface. The nitrate of silver is dissolved, and an inflammation is set up which produces the desired result. The patient should be kept at rest for eight or ten days. The same method is applicable to small serous cysts, in the treatment of which injection with tincture of iodine is often employed. (*Journ. de Méd. et de Chir. Prat.*, Août 1863.)

Association Intelligence.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE next meeting will be held at the Bull Inn, Rochester, on Friday, September 25th, at 3 P.M.

Dinner tickets, 6s., exclusive of wine.

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, September 15th, 1863.

EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting will be held at the Ship Hotel, Dover, on Thursday, September 24th, at 3 P.M.

Dinner will be ordered for 5 P.M.

THOMAS BOYCOTT, M.D., *Hon. Secretary.*

Canterbury, September 7th, 1863.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
EAST YORK AND NORTH LINCOLN. [Ordinary.]	Yarborough Hotel, Grimsby.	Wednesday, Sept. 23rd, 2 P.M.
MIDLAND. [Quarterly.]	Board Room of the Infirmary, Derby.	Thursday, Oct. 15, 2 P.M.

Reports of Societies.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

ANNUAL MEETING.

[Held at Newcastle-on-Tyne, August 1863.]

The Coal-Miners of Durham and Northumberland: Their Habits and Diseases. By R. WILSON, M.D. This was a very able and elaborate paper. The author commenced with some general observations, on the nature of life, disease, and death; and stated that his object was to shew what effect the exclusive habits and occupation of the coal-miner of the north of England have on his health and length of life. He then described the habitations of the miners, which, he said, were generally clean and comfortably furnished. The various subdivisions of labour in the coal-mine were then noticed; and the operation of mining, as carried on by the pitmen, was described. The habits of the men, when off duty, next came under review. The pitman never feels hungry while at work, but on coming out he becomes ravenous and takes food as soon as he enters his cottage. Many of the foreshift-men take "crowdy," which is a compound of oatmeal, hot water, and butter; others take coffee or tea, with bread and butter, and some take dinner. The backshift-men always take dinner when they come home; this usually consists of roast beef or mutton and potatoes, with boiled suet-dumpling or pudding. They eat their pudding first, and beef or mutton afterwards. They take animal food once a day only; and, considering the great muscular exertion necessary in hewing, the amount of mutton they eat is very moderate. They seldom or never drink beer at dinner. Most smoke a pipe, and then they wash. This washing process is done very effectually. A large wooden tub of hot water is set down before the fire; the man then sits down on a small stool, with a leg on each side of the tub; and, being supplied with a piece of soap, he begins by washing his hands, arms, and chest, head, neck and face, and ends with the lower extremities, the one after the other. This finished, if in the foreshift he goes to bed; his wife hands him his pipe lighted; and in a few seconds he is fast asleep. The backshift-men dress after dinner, and employ themselves as their fancy leads them. Every available piece of ground near the villages is converted into a garden; and almost every cottage has one attached to it. Some keep poultry, and most feed a pig; they cure their own bacon with great success. Their bread is home-made; two kinds are used by them—white and brown. Great excesses are still prevalent on the pay Friday and Saturday nights; ale is the liquor chiefly drunk; but no matter what excesses a man may commit, he must be at his post on the Monday following, or run the risk of being turned off; so that the habitual drunkard is certain to lose his employment. In all the author's experience, he had never known a case of dipsomania, nor had he been called upon to treat a single case of *delirium tremens* among the pitmen. By the rules of their benefit societies no one is allowed to frequent public-houses while receiving sick money; he is not to be out later than nine o'clock in the summer

and seven o'clock in winter; and he cannot go from home without the leave of his medical attendant. Men who are injured while at work in the pit get a weekly allowance of five shillings from the owners of the colliery. In the sanitary statistics relating to miners, submitted to the International Statistical Congress, a table of the aggregate number of deaths of miners, 15 years and upwards, in 19 districts of England and Wales during the five years, 1849-53, gives from all causes, 7434 deaths. Of these 81 were occasioned by small pox, 810 by cholera and diarrhoea, 444 by typhus, 101 by other zymotic diseases, 304 by diseases of the brain, 361 by heart disease and dropsy, 1663 by phthisis, 790 by diseases of the lungs, 260 by diseases of the stomach and liver, 71 by disease of the kidneys, 37 by diseases of the joints, 1813 by violent deaths, and by other causes 709. Hence violence is the most frequent cause of death. Accidental violence also incapacitates the pitman from work oftener than any special disease or ailment. Accidents, if not immediately fatal, are not often so ultimately. During the last seven years 250 men got injured at work, and were under Dr. Wilson's care for periods varying from one week to six months; and although many were very hopeless cases, all recovered but two, one of whom had organic disease, and the other went to work too soon after the receipt of the injury, and partook largely of stimulants. In all these cases, many of which were compound and comminuted fractures, there did not occur one single case of pyæmia. Phthisis stands next as the most prevalent cause of death. Dr. Wilson would say that phthisis is not prevalent amongst the miners of the north of England; and he had further to notice in this district the absence of the so-called black phthisis or carbonaceous lung. Attacks of pleuropneumonia are not unfrequent; and bronchitis is common. It is rare to find an old pitman who has moved about much from one colliery to another who is not short-winded. Not having had the opportunity of making *post mortem* examinations in such cases, the author could not say what is the pathological state of the lungs; but it could be easily conceived that the irritating nature of the gas unavoidably inhaled may give rise to spasmodic asthma, and this, with the sudden changes of temperature of the air breathed, causes the copious secretion of mucus, and ultimately emphysema. The number of 361 deaths from heart-disease seems a small proportion, when we consider that the ailment just alluded to brings on heart affection, and also that the rheumatic diathesis, which prevails amongst them, is such a great source of organic disease of the heart. Contrary to what might be expected from the violent muscular exertion necessary in hewing, frequently working in wet and damp places, and exposure to currents of air, rheumatism or rheumatic fever does not often affect the coal-hewers. Their freedom from this as well as other formidable disease, is clearly owing to the free perspiration while at work, and the daily ablutions with soap and hot water at home. The drivers and lads are more exposed to draughts of air, and they do not perspire so freely; they are, therefore, more liable to rheumatic fever, and its frequent consequence, heart-disease and dropsy. The hard work and constrained position of the mine is unsuited for the youth with an enfeebled heart; and, with the exception of epilepsy, there is no other disease so inimical to the poor young pitman. There is nothing of which a pitman complains oftener than a pain in the back; it is sometimes so severe as to unfit him for work. Dr. Wilson believed it to be a species of lumbago, induced by the great strain on the muscles of that part, and in no way connected with the kidneys. He had had occasion to treat a few cases of renal calculus; but he never saw a case of Bright's disease in a pitman. That the disease is not uncommon in the district might be known from the fact that, at the time he wrote, he had five patients under treatment for albuminuria, three of them being wives of

pitmen. He failed to trace any peculiar tendency to disease of the brain, unless the stooping position may tend to produce apoplexy. Gastric and hepatic derangements are by no means uncommon, owing to excesses at the pay, irregularities in diet, and smoking tobacco; but the coal-miners are not more liable to indisposition from these causes than tradesmen or mechanics. The joints, though heavily dealt with, do not often suffer. The deaths from zymotic diseases were not great, when 810 occurring from cholera and diarrhoea, which prevailed as an epidemic during the period above referred to, were deducted. The coal miners visit much amongst each other; and contagious epidemics are apt to spread through the villages; but owing to the construction of the cottages, and their fires kept constantly burning, the ventilation is good; and consequently the rate of mortality from infectious disorders is not large.

Nineteen mining districts being classed into four groups:—1. Cornish districts; 2. Staffordshire districts; 3. Northumberland and Durham districts; and 4. South Wales districts—it is found on examination that the South Wales districts are the most unhealthy, and the Northumberland and Durham districts the most healthy. To every 100 miners of the aggregate of the four groups of the mining districts living at fifteen years and upwards, the annual deaths are 1.811; in Durham and Northumberland they are 1.112. In Durham and Northumberland districts the deaths per cent. of males, exclusive of miners, are 1.855 per cent., whilst in the South Wales districts the numbers are for miners, 2.618; and exclusive of miners, 2.214. The after-life time of males of all classes of England and Wales at 20 is in round numbers, 39 years; from 63 healthy country districts, 43; Cornish miners, 34; Staffordshire, 33; Durham and Northumberland, 42; South Wales, 30. Within the last few days there had been taken from the registrar of the Easington union, the cause of death of every coal-miner and every coal-miner's son above 10 years of age, who died during the last 10 years. The union has an area of 34,780 acres, and a population of 26,938; eight or nine large collieries are within it, and the number of coal-hewers in considerably above 2000; the deaths from all causes have been 5365, the deaths of coal-miners and men who worked in or about collieries are 470; of these 35 were caused by small pox, cholera, and fever; 33 by disease of the brain, including apoplexy, paralysis, and tetanus; 60 from disease of the heart and dropsy; 56 from phthisis (20 of the deaths from phthisis occurred under 20 years of age, some had not worked underground, and some were registered as screeners); 14 from disease of the lungs, including bronchitis, rheumatism, and asthma; 17 from diseases of the stomach and liver; 2 from diseases of the joints; and cancer, 11; 4 from disease of the kidneys: 45 from old age and exhaustion, and from violence (including 1 by suffocation, 2 by burning, 8 by drowning, 2 by feloniously cutting and stabbing)=166. We notice here the large proportion of deaths from accident; the paucity of phthisis and the number of deaths from old age—13 registered as heart-disease, asthma, and bronchitis, were upwards of 70; 2 deaths from joint disease; 1 from Bright's disease; and not one from the specific diseases brought on by excessive drinking. These facts, the author thought, must show there is nothing in the habits and occupation of the coal-miner of this neighbourhood detrimental to his health; but rather that his peculiarities, however unnatural and even indecent they may appear to some, tend to his welfare. On going to work, were he to take a full meal, his digestion would either be entirely suspended or unduly hurried; and if he washed prior to taking food on his return home, this process, which more than anything else maintains his healthy vigour, would be less efficiently done, his stomach might suffer by its own secretion, and his appetite and digestive power would certainly diminish. Pitmen marry young,

and are thus freed from a host of imaginary and real diseases which embitter the existence of thousands more fortunately placed. The author would say, then, to the philanthropist—"Let well alone, and do not interfere with the physical condition of the miner in our northern coal fields." A more useful and necessary aim would be to try to improve his moral state; although even in this respect he is better than he seems, and has been grossly misrepresented. The ruffian is considered as much a ruffian in a colliery village as in any town or city, and his conduct is as much condemned as it would be in any society. Much of this is due to Methodism; and however much we must regret the lack of confidence of a community in the established religion of its country, it is to the credit of the dignitaries of our Church that they recognise the good accomplished by the exercise of that means which, although they cannot approve, they do not condemn.

Voluntary Closure of the Glottis. By GEORGE D. GIBB, M.D. The author said, that independently of the act of breathing, this was accomplished by temporarily holding the breath, and voluntarily acting upon the muscles of the larynx, and opening and shutting the glottis at pleasure. This action could be seen with the laryngoscope, in a series of experiments which Dr. Gibb had performed upon himself, and they proved that the muscles of the larynx are voluntary, and wholly under the control of the will, in most, if not all individuals.

Position of the Epiglottis. By G. D. GIBB, M.D. This was a continuation of a paper brought before the Association last year at Cambridge. In the examination of six-hundred and eighty healthy persons, Dr. Gibb had found eleven in every hundred to possess a pendent epiglottis, being more or less oblique or transverse, and therefore covering up, to some extent, the opening of the larynx. This is so inconvenient in the event of disease of the throat, amongst children especially, that he recommended that every child between the ages of four and twelve years should be examined as to the position of the epiglottis, and if pendent the parents should be made acquainted with it.

Plants and Gases. By R. GARNER, ESQ. In this paper, Mr. Garner brought forward the subject of the natural inhalations and exhalations of plants, and of the effects on vegetation of certain non-natural contaminations of the atmosphere, such as occur in coal and mining districts, consisting for the most part of sulphurous and hydrochloric acids and of ammonia. Different plants have different susceptibilities for such influence; and a kind of rudimetrical table may be constructed, in which the greater or lesser impurity of the atmosphere may be shown from the effects on plants. Thus, the rhododendron, or yucca, or aucuba will flourish in an air fatal to the common laurel; wheat will luxuriate when a holly or oak will die. Annuals suffer least, evergreens much. The paper gave the result of many experiments on plants by means of gases, etc., applied to the leaves and roots. Some plants which appear naturally to luxuriate in the coal-strata, as the oak, holly, and some ferns, soon die when the mines began to be worked. Trees lose their leaves earlier than in other districts, and, as a rule, evergreens suffer much. One thing was fortunate, annuals suffer less; for instance, corn and wheat do well when nothing else could, and perhaps the exhalations in question might even tend to ripen them.

THE PHARMACOPEIA OF THE UNITED STATES OF AMERICA. We are happy to announce that the labours of the Committee of Revision and Publication of the new *Pharmacopæia* are at length closed, and that this authoritative manual is now placed before the profession. (*American Medical Times.*)

Correspondence.

INFLAMMATION OF MUCOUS MEMBRANE.

LETTER FROM JAMES ROSS, M.B.

SIR,—Permit me to call the attention of the profession to a remark made by Dr. Chambers, in his introductory lecture, "On the Formation of Mucus and Pus." "The office of mucous membrane," he says, "is not to secrete mucus. It is most active when it is not doing so, and its activity is decreased just in proportion to the copiousness of the mucus." We most heartily agree with Dr. Chambers. This is a simple and practical test of the degree of nutrition carried on in a mucous membrane, and ought to be a guide to us in the application of our remedies.

Let us apply this test to some of the abnormal conditions of the membrane. The first effect of an inflammation of the mucous membrane is to render its surface dry; and the second is to render the secretion of mucus more abundant. Apply, then, the above test, and the inference is easy, as it is logical, that the first stage of inflammation is characterised by an increased, and the second by a diminished nutrition. This idea is borne out by noticing the progress of inflammation in the other tissues, as well as in mucous membranes. Take, for instance, the function of the brain as the outward exponent of the amount of nutrition going on in it. Here, in the first stage of inflammation, all the senses are exalted, there is intolerance of light and sound, with furious delirium; while, in the second stage, the patient lies in a state of stupor, with dilated pupil, and almost insensible to light and sound. Again, an inflamed muscle becomes at first spasmodically rigid and then paralysed.

If, then, the first stage of inflammation is characterised by an increased, how does it come about that the second is characterised by a diminished nutrition? This is a question that does not concern me very much how it is answered, so long as it is granted that in inflammation there are two perfectly distinct stages, and characterised by opposite conditions of nutrition. My own idea of it is the following. I conceive that, whatever may be the exciting cause of inflammation, whether it be external irritation, or poison circulating in the blood, or an action of the nervous system, the conditioning cause is an excess of the normal action of the tissues; and that, in order to administer to their demands, there is a great influx of blood to the part. But the violent action going on in the part now produces changes in the blood and capillaries, which ultimately procure occlusion of some of the capillary vessels. Also, owing to the high action going on, there is a great amount of waste products separated from the tissues, while the absorbents are not able to meet the demands made upon them, so that these accumulate external to the vessels. Now that the capillaries are pressed upon from without by this accumulation of waste products, and some of them plugged from within, the circulation must be to a considerable extent impeded, and, as a natural consequence, the tissues cannot now be so highly nourished; and this gives rise to a diminished nutrition in the part. So that the high action in the tissues constitutes the disease; the arrest of the circulation, to a certain extent, nature's method of checking it.

Let us now apply this test to one of the remedies of inflammation, namely, counterirritation, to see what effect it has on the nutrition of the parts. Suppose, then, that in the first stage of bronchitis, when the membrane is dry, the bronchi constricted by spasm of their muscular fibres, and the patient suffering from difficulty of breathing, and a dry harassing cough; a

blister is applied; the membrane pours out mucus; the spasm becomes relaxed; the patient now breathes easily, and tells us that his cough is quite "loose". Now this is just the natural course of bronchitis; and all that the blister has done is to hurry the inflammation through the first stage, when most of the distress is experienced, on to the second stage, which is comparatively easy. It has neither "allayed" nor "controlled" the inflammation; but merely assisted it through its natural progress. Again, in the second stage, when the membrane is pouring out mucus or pus (an evidence of still lower nutrition), a blister is applied, the mucus or pus becomes less and less in quantity, until it disappears. Here, then, the blister has raised the standard of its nutrition.

In both these cases, I cannot conceive of the blister acting on any other principle than that of stimulation; and I here bid defiance to any member of the profession to bring forward one unequivocal case, where a blister has either "allayed" or "controlled" inflammation. It is merely a local stimulant, and only to be employed when a stimulant is indicated. No practical man would ever think of applying a blister in the first stage of pleurisy; and, if it be applied, is the inflammation in any way allayed? Certainly not. True, the severe lancinating pain may be at once relieved, and the patient and his friends think that the blister has been of great service; but percussion instantly reveals the *rationale* of this. The bag of the pleura is filled with fluid, the inflamed membranes are now separated from each other, and the pain ceases; but again I repeat that the inflammation has only been hurried on from the first to the second stage. During the second stage, it procures absorption of the fluid by stimulating the tissues of the pleura to increased action, and raising the standard of their nutrition.

It follows, now, that we should be curious to know how the blister produces this action; but, so long as it is granted that its therapeutic value depends on its power of stimulating the tissues to increased action, I care not much what opinions may be held regarding its *modus operandi*. I am willing to shake hands with the neuro-pathologist, who would have it act through the medium of the nerves; nor have I any great objections to the old theory of counterirritation, if it can be shewn that the abstraction of blood from the part will raise the standard of its nutrition. My own opinion is, that this action spreads along the tissues. Surrounding a blistered surface, there is a red ring of considerable depth; which shows that the irritation has spread beyond the spot with which the blister was in immediate contact. Now, we cannot suppose that the irritation has ceased when our dull senses cease to recognise a change in the outward appearance of the part; but that, beyond the red zone surrounding the blister, there is another zone, the tissues of which have been stimulated to increased action, without the increase being so great as to cause any change in the part which our unaided senses can recognise. If, then, the tissues of this external zone are in a state of lowered nutrition, the blister will tend to raise their action of the normal standard. Irritation spreads quite independently of the presence of nerves and blood-vessels (however its extension may be modified by them), as it spreads in tissues destitute of both, such as articular cartilage; so that irritation is mainly, if not wholly, propagated by an action of the parenchyma of the part, and on this extension of irritation from an inflammatory centre depends the action of a blister.

If it be granted that a blister merely acts as a local stimulant, and only to be employed where a stimulant is indicated, I feel persuaded that it will lead to very practical results; and I feel equally persuaded that the idea of counterirritation, as it has been called, allaying or having a controlling power over inflammation, has led to most dangerous errors in practice.

When I was a medical student, Mr. D——, labouring

under acute tonsillitis, consulted me. It was not a severe case, and the inflammation had begun to subside. In order to expedite the recovery, as I imagined, I ordered a mustard blister to the external fauces, with the idea that it would "*allay*" the inflammation; and, at the same time, I ventured to predict that he would be much better, if not quite well, on the following day. Next morning I called, fully expecting to find my prediction verified; but, to my amazement, I found him suffering extremely, the inflammation was lighted up again, and it ended in suppuration. I accused him of having exposed himself to cold; but he assured me that such was not the case, and justly, as I now think, attributed his sufferings to the blister. There can be little doubt that such errors are frequent.

To sum up, then, inflammation consists of two stages; the one characterised by an increased, the other by a decreased, nutrition. I find, if a blister be applied in the first stage, it merely aggravates the inflammation, and hurries it on to the second stage; and, when applied in the second stage, it tends to raise its nutrition to the normal standard.

I am, etc.,

JAMES ROSS, M.B. and C.M.

Knottingley, August 1863.

SUPPORTING THE PERINEUM.

LETTER FROM THOS. B. BOTT, M.D.

SIR,—I have been much pleased with the very sensible remarks on the subject of supporting the perineum in labour in the letter by Mr. Russell of Bawtry, published in our last JOURNAL; and, having proved its value during several years, I can very confidently recommend its practice.

As the head advances, I have been accustomed to prepare for it by artificially dilating the vagina—pressing on the perineum with the index finger during a pain. The passage of the head over the perineum is thus expedited, and the distension of that region is less sudden. In so far the tendency to rupture is obviated. But when the head or the scalp-tumour sufficiently protrudes, I commence the manipulation advocated by Mr. Russell. In so doing, the mother is, of course, compressed between the back of the child's head and the pubis; but, as the interference is only to be made during the last few pains, the pressure is only of short duration, and at intervals; and no inconvenience generally results.

It is curious that your correspondent and I should have been thinking on this subject at the same time. Last week I came to the conclusion that I had tested this plan sufficiently long to warrant my writing to you on the subject. However, I did not find an opportunity; and, when this last week's impression came out, I found that I had been saved the trouble.

I am, etc., THOS. B. BOTT.

Bury, August 31st, 1863.

EDINBURGH UNIVERSITY. Sir David Baxter—who presented Dundee with a park of the value of £50,000—has funded £3,000 for the purpose of establishing two scholarships in the University of Edinburgh, of the value of £60 each *per annum*.

BAD MEAT. In his last report, Dr. Lethely states that in the city of London the officers had condemned in the course of the last six weeks 43,523lbs., or rather more than 19 tons of meat, as unfit for human food. It consisted of 166 sheep, 34 calves, 53 pigs, 193 quarters of beef, and 804 joints of meat—22,516lbs., or more than half of the whole quantity was putrid, the putridity having been caused by the unusually warm weather in the early part of last month; but 9,866lbs. were diseased, and 3,211lbs. were from animals that had died from accident or disease.

Medical News.

APOTHECARIES' HALL. On September 10th, the following Licentiates were admitted:—

Becker, John Leigh, Maidstone
Miles, Thomas, Totnes, Devon
Rigg, John, Southport

At the same Court, the following passed the first examination:—

Booth, William Reuben, St. George's Hospital
Ray, Edward Reynolds, Guy's Hospital

ARMY MEDICAL SERVICE. List of the candidates who were successful at the competitive examination at Chelsea Hospital, on August 10th.

Atkins, C. J.
Barker, James
Barker, J. E.
Barry, J.
Beattie, J. T.
Bolton, R. H.
Byrne, F. A.
Collier, H. C.
Condon, E. H.
Cuffe, C. M. D.
Cunynghame, R.
Delmege, J. P.
Dick, F.
Elgee, W.
Fearon, George
Forsayeth, R. W.
Gouldsbury, V.

Greene, H. R.
Greenhill, J. R.
Haines, C.
Howard, F.
Kynsey, W. R.
Lawless, R. W.
Lyons, P. P.
Morris, H.
Preston, A. F.
Shaw, J. A.
Smith, W. P.
Thomson, A.
Troup, A. W.
Turner, A.
Weir, C. J.
White, Thomas

APPOINTMENTS.

ATKINSON, Charles S. A., Esq., appointed House-Surgeon to the West Norfolk and Lynn Hospital.
CORRIE, James J., Esq., appointed Resident Medical Officer to the Leeds Fever Hospital.
BRISTOWE, John S., M.D., elected Physician to the Asylum for Female Orphans.
HEAD, Edward, M.B., elected Assistant-Physician to the Metropolitan Free Hospital.
ORROCK, James, Esq., appointed Surgeon-Dentist to the Leicester Infirmary.
*SMITH, W. Abbotts, M.D., elected Physician to the Metropolitan Free Hospital.
TUKER, John B., M.D., appointed Assistant-Physician to the Royal Lunatic Asylum, Morningside, Edinburgh.

POOR-LAW MEDICAL SERVICE.

BATEMAN, Charles, Esq., to District No. 1 of the Nottingham Union.
BUCHANAN, Alexander, Esq., to the parish of Tyree, Argyleshire.
FITZGERALD, Alexis, Esq., to the Carrick-on-Suir District of the Carrick-on-Suir Union, co. Tipperary.
FRENCH, Edward Thomas, Esq., to the Rathdrum Dispensary District of the Rathdrum Union, co. Wicklow.
HARDING, Charles F., M.D., to the Northern District of the Whiteley Union, Cambridgeshire.
HUTHWAITE, Charles, Esq., to District No. 2 of the Nottingham Union.
LATHAM, Alfred Wm., Esq., to the Bloxwich District of the Walsall Union.
MOORE, David Smith, Esq., to the Bloxwich District of the Walsall Union.
NICOLLS, Richard D., M.D., to the Killeen District of the Dunshaughlin Union, co. Meath.
O'HARA, M. C., M.D., to the Kilkelly District of the Swineford Union, co. Mayo.
RANSOM, Thomas Wm., Esq., to the Bloxwich District of the Walsall Union.
ROWLANDS, Isaac, Esq., to the Tregynon District of the Newtown and Llanidloes Union, Montgomeryshire.
SOMERVILLE, John H., Esq., to the Bloxwich District of the Walsall Union.
WYLLIE, Andrew, M.D., to the Borough District of the Walsall Union, Staffordshire.

ARMY.

BRAYBROOKE, Staff-Surgeon W., to be Staff-Surgeon-Major, having completed twenty years full-pay service.
HIFFERNAN, Staff-Assistant-Surgeon E. L., to be Assistant-Surgeon 5th Foot, vice P. Davidson, M.D.
WILES, Staff-Assistant-Surgeon J., to be Assistant-Surgeon Rifle Brigade, vice F. S. B. F. De Chaumont, M.D.

To be Staff-Assistant-Surgeons:—

DAVIDSON, Assistant-Surgeon P., M.D., 5th Foot.
DE CHAUMONT, Assistant-Surgeon F. S. B. F., M.D., Rifle Brigade.

ROYAL NAVY.

ANDERSON, James R., Esq., Surgeon, to the *Porosus*.
CANN, Thomas, Esq., Assistant-Surgeon, to the *Speedwell*.
CARLETON, William, Esq., Acting Assistant-Surgeon, to the *Scylla*.
DODSWORTH, W. D., Esq., Acting Assistant-Surgeon (additional), to the *Marlborough*.
EDNEY, William, Esq., Surgeon, to the *Scylla*.
FRAZER, John, Esq., Acting Assistant-Surgeon, to the *Marlborough*.
HAY, Robert, M.D., Acting Assistant-Surgeon, to the *Porosus*.
HENDERSON, Joseph, M.D., Staff-Surgeon, to the *Boscawen*.
M'SHANE, Charles, Esq., Surgeon, to the *Gibraltar*.
MIDDLETON, James, M.D., Assistant-Surgeon, to the *Weser*.
PRATT, Alfred S., Esq., Assistant-Surgeon, to the *Dee*.
REID, Walker, M.D., Acting Assistant-Surgeon, to the *Gibraltar*.
WALLER, Edward, M.D., Assistant-Surgeon, to the *Gibraltar*.
CRAW, John, M.D.
MACDONALD, John A., Esq.
REID, Walter, M.D.
WALSH, John, M.D.
WAY, John P., Esq.
COMERFORD, John T., Esq.
HAY, Robert, M.D.
M'MAHON, William, M.D.
WAUGH, Isaac, Esq.

Acting Assistant-Surgeons (additional), to the *Victory*, for Haslar Hospital.

Acting Assistant-Surgeons (additional), to the *Royal Adelaide*, for Plymouth Hospital.

BIRTH.

LANSDOWN. On September 9th, at Bristol, the wife of *F. Poole Lansdown, Esq., of a son.

DEATHS.

HODSON, John C., Esq., Surgeon, at Kilburn, aged 38, on Sept. 9.
LITCHFIELD. On September 15th, Eleanor Augusta, wife of Thomas Litchfield, M.D., of Twickenham.
SEALY. On June 24th, aged 10, Alfred C., second son of William B. Sealy, M.D., of Nelson, New Zealand.

DEATH OF MITSCHERLICK. The death of the venerable chemist, Mitscherlick, lately occurred at Berlin.

OUR DEAF AND DUMB. In England and Wales there are 19,352 persons afflicted with blindness, and 12,236 deaf and dumb.

PRICE OF WAR. Three hundred thousand lives during the past two years of the war have been sacrificed in battles and by disease—and the sacrifice is not yet ended. (*American Medical Times*.)

OAKUM. This article is now quite extensively used in many hospitals as a dressing for wounds, and has thus far proved a very excellent substitute for picked lint. It facilitates discharge, while at the same time it acts as a grateful local stimulant. (*American Med. Times*.)

EXTINCT TURTLES. Frequenters of the Mansion House dinners will, perhaps, feel an unusual interest in Professor Owen's assertion "that more species of true turtle have left their remains in the London clay at the mouth of the Thames than are now known to exist in the whole world."

THE ASYLUM AT YARMOUTH. There are now a hundred and sixty inmates of the Great Yarmouth Naval and Military Asylum, eighty having recently arrived from Haslar. The asylum was officially inspected in the course of last week by Sir J. Liddell, and was found to be in a satisfactory condition.

APOTHECARIES' HALL PRIZES IN BOTANY. At the recent examination for the prizes offered annually by the Apothecaries' Society for proficiency in the knowledge of botany (systematic, descriptive, and physiological), the successful competitors were Mr. Henry Greenway Howse, of Guy's Hospital; and Mr. Ralph Gooding, B.A., of King's College; the former of whom obtained the gold medal, and the latter the silver medal and books.

SURGEONS AND COLOURED REGIMENTS. It is reported that there is some difficulty experienced in securing surgeons and assistant-surgeons for the coloured regiments, while the line officers are in excess of the demand. Whatever may be the scruples of surgeons about joining these regiments, it is apparent that the negroes are fully demonstrating their ability to become first-class soldiers. (*American Med. Times*.)

BOUQUET OF WINES. M. Maumené has found that the odour of some wines can be imitated by a mixture of a few drops of anethic ether and essence of pears; the addition of a drop or two of butyric ether gave some resemblance to other wines. By mixtures of this sort, the author thinks that the bouquets of most wines may be imitated. The taste of the mixtures prepared is as much like the wines as the odour.

POPULATION OF ENGLAND AND WALES. The total number of males, according to the census of 1861, was 9,776,259, and females 10,289,965. In England, the two sexes are stated at 18,954,444; while in Wales they are only set down at 1,111,780. In England, there were 50 males and 127 females of 100 years and upwards, and in Wales, 5 males and 19 females of the like advanced age. Ladies enjoy the greatest longevity in Lancashire, where there are 18 of the sex over a hundred years old, and 6 men of the same mature age.

THE CASH VALUE OF A SOLDIER. "To put a soldier into the field," says Surgeon-General Hammond, "costs the government nearly four hundred dollars; should he die, or become disabled in service, a pension is given. Looking at the matter, therefore, merely in a financial point of view, we perceive that it is a subject of serious importance, that every means should be taken to preserve the lives and health of those who come forward to fight the battles of their country." Taken in a strictly economic point of view, the cash value of every soldier's life in the loyal army exceeds one thousand dollars, if that life can be preserved at full vigour during the war, or until lost in battle. Such is the simple arithmetic of war. (*American Medical Times.*)

INTERNAL HEAT OF THE EARTH. Sir William Armstrong states the increase of temperature below the earth's surface to be one degree of Fahrenheit for every sixty feet in depth. Sir John Herschel states it to be one degree of Fahrenheit for every ninety feet, while Dr. E. Hitchcock says; "The mean rate of increase has been stated by the British Association to be one degree of Fahrenheit for every forty-five feet." Mr. Fairbairn again, stated, from experiments at Dukinfield, that a mean increase of one degree Fahrenheit for every seventy-one feet had been arrived at.

NEW REGULATIONS OF APOTHECARIES' HALL. In accordance with the recommendations of the General Council of Medical Education and Registration, the Court of Examiners of the Apothecaries' Society have recently modified their regulations, so that students will in future be admitted to the examination for the degree of L.S.A. after three (instead of four) years of professional study, irrespective of pupilage; and students being medical graduates of one of the recognised British Universities will only be required to pass a *practical* examination in the practice of medicine and midwifery.

AMERICAN ARMY MEDICAL SERVICE. A change has taken place in the head of the bureau of Army Medical Inspection. Dr. Perley, the first Medical Inspector-General, has resigned; and his place is filled by Dr. Joseph K. Barnes, formerly a surgeon of the United States Army, but more recently one of the Medical Inspectors. Dr. Barnes is a native of Pennsylvania, and entered the army as assistant-surgeon from that state June 15th, 1840. He was made a full surgeon August 29th, 1856. The reasonable anticipations of important results to the service, and additions to the science of military hygiene, through this bureau, have failed of full realisation through want of a competent head. Little or no direction was given to the course of inquiry, and no use whatever was made of the accumulating materials. We believe that branch of the army medical service will find in Dr. Barnes an executive officer fully capable of developing it in all its details. (*Amer. Medical Times.*)

THE CHANNEL FLEET AT BELFAST. The Ulster Medical Society last week at Belfast entertained the medical officers of the fleet at a sumptuous dinner at the Society's house, High Street. The chair was occupied by the President, Dr. Patterson. The guests, officers of the fleet, present were Dr. Spier, Dr. Sharood, Dr. Sloggett, Dr. Keelan, Dr. Courtenay, Dr. Mockridge, Dr. Allan, and Dr. Alcock. There were also present Drs. Bayfield, Poppilwell, and Cunningham, army surgeons; Dr. T. Reade, Vice-President Ulster Medical Society; and a large number of other medical gentlemen. The Chairman, in proposing the toast of "The Medical Officers of the Fleet", said they should all feel proud in honouring that flag which had triumphantly braved for a thousand years the battle and the breeze. "We identify ourselves with its glory; we rejoice in its triumphs; we honour its renown; we regard it as the best defence against a foreign foe, to protect what is Great Britain's boast—happy homes and altars free. The toast was eloquently responded to by Dr. Sloggett of the *Edgar*, and Dr. Smith of the *Royal Oak*.

TEST OF MEDICAL CAPACITY. Dr. Bauer, the Health Officer of Brooklyn, in his official capacity, denied the validity of a certificate of death which was marked by orthographical and grammatical errors, taking the ground that the writer thereby showed such a defective education that he could not be a qualified medical man. He accordingly directed the coroner to hold an inquest upon the case. The sequel proved the correctness of Dr. Bauer's conclusion. The medical attendant, though a legally qualified practitioner, was a quack, having graduated at a chartered eclectic school. (*American Med. Times.*)

THE NEW MEDICAL BILL. We are pleased to find that the United Society of Chemists and Druggists has taken up this matter most warmly. Meetings have been held at Manchester and Leeds, at which resolutions have been unanimously passed, strongly disapproving of this unparalleled interference with the interests of so exclusive a body as the chemists and druggists of this country. While on this subject of the United Society, we may mention that efforts are being made by them to procure an Act of Incorporation of the chemists and druggists of the United Kingdom. Until six months after the passing of the proposed Act, all legitimate claimants to be considered as members of the trade will be acknowledged, after which time an examination by a board of examiners will be necessary. (*Chem. News.*)

CURE FOR HERNIA. Dr. Detmold remarked that the mere reversion of the position of the body was by no means a novel procedure, as it had long ago been advised by writers upon surgery, some of whom recommended that the patient should be tied for a time to a ladder with the head downwards. He referred to a case of femoral hernia in a female whom he was called to see in consultation. When he arrived, he found the medical attendant leisurely walking up and down the room with the patient slung over his back head downwards. In this instance, the hernia was not reduced. He had occasionally succeeded in reducing strangulations in children by suspending them by the feet. (*Amer. Medical Times.*)

THE MEDICAL CHARITIES ACT. At a meeting of the Board of Guardians of the Drogheda Union, a letter was read from the Poor-law Commission Office. Some doubt had existed as to whether a medical officer of a dispensary district had the power to call to his aid in difficult cases a second practitioner for assistance and advice; and in one case, at a neighbouring dispensary, a doctor was called in in a dangerous midwifery case, and a fee of a guinea given him. The reply of the Commissioners was to the effect that, under the circumstances, the course adopted was the correct one. Their commu-

nication concluded with the following words:—"The Commissioners desire further to state that, in all urgent cases similar to the one referred to, the medical officer should, if possible, procure additional advice through the relieving officer, who has power, under Section 7 of the Poor Relief Extension Act, to procure the services of a medical officer."

MEDICAL EDUCATION IN AMERICA. We overlook entirely the primary education of medical students, and place our diplomas within the reach of the most ignorant and incompetent. The meagre requirements for graduation which the schools have instituted invite rather than deter the poorest class of students, and those who are no students at all. As a consequence, thousands of ignorant, immoral, and incapable persons go through these prescribed forms, and are in due time invested with the rank and privileges of doctors in medicine. Every session of the medical colleges swells the number of this class of graduates, until they have reached a fearful sum total. It is not strange that the popular saying should run thus, "He is good for nothing else but to become a doctor." (*Amer. Med. Times.*)

Varieties.

DR. RIPARI. Dr. Ripari has published a *Medical History of the wound received at Aspromonte by General Garibaldi*. Pietro Ripari, a Roman by birth, distinguished alike in his profession and in literary pursuits, was a volunteer soldier and surgeon with Garibaldi at Rome in 1849, and afterwards suffered long imprisonment at Pagliano. In 1859 he was free, and again joined his chief, and went through the campaign. In 1860 he was once more to the front, and entered Naples with Garibaldi; and finally, in 1862, he was at Aspromonte, was imprisoned with his general, liberated with him, and has never left him till now that he is cured.

CATTLE DISEASES. In the Public Health Report, Mr. Simon calls attention to cattle diseases. He points out the leading facts in the Report of Professor Gamgee, who had been appointed by the Privy Council to investigate the matter. His evidence is, in substance, that disease prevails very extensively in the United Kingdom among horned cattle, sheep, and swine; that the diseased state of an animal not only does not commonly lead the owner to withhold it from being slaughtered for consumption as human food, but, on the contrary, in large classes of cases (especially where the disease is of an acute kind), leads him to take immediate measures with a view to this application of the diseased animal; and that, consequently, a very large proportion (Mr. Gamgee believes as much as a fifth part) of the common meat of the country—beef, veal, mutton, lamb, and pork—comes from animals which are considerably diseased. The diseases which figure behind the scenes of our dead meat market are, of course, various. The most important kinds are three; viz., first, contagious fevers; secondly, the so-called anthracic and anthracoid diseases; thirdly, parasitic diseases. Mr. Gamgee states his belief that a very large proportion of the disease prevailing in the United Kingdom might by proper measures be prevented, inasmuch as the epidemic diseases are due entirely to contagion, originally foreign; while the most destructive endemic diseases are due partly to local malaria, which improved land drainage would dispel, and partly to dietetic mismanagement.

A PHYSIOLOGICAL STUDY. Dr. Ripari, the physician and intimate friend of Garibaldi, gives the following sketch of him:—"General Garibaldi is in stature rather well proportioned than large. He has broad square shoulders; neck, chest, and arms very fine, and formed like a sculp-

tor's model; the muscles strongly developed. The frame so formed that no obtrusive angle mars the harmony of the whole. This it is that renders him so apt for any bodily exertion, as his powerful thighs and legs render him an indefatigable walker. His head would be large but for his vast breadth of shoulders. A high open forehead, eyes lively and eloquent, and suiting themselves to every thought of his mind; sight intensely acute, and it is a singular fact that when he fixes his eye horizontally on space, as if in search of an idea, the iris contracts, and a very flame seems to shine from it. No living soul can read the depths of those thoughts. Menotti resembles his father in this. The General's temperament is the most enviable that nature can bestow on mortal; it is at once nervous, sanguine, and lymphatic. Hence, the three men of whom we may say Garibaldi is composed—the man of thought, the man of action, and the man of calm and secure determination. I have known and know the bravest soldiers. But the solemn calmness, the supreme bravery of Garibaldi, I have seen in no other. The sentiment which prevails in him, and which all other feelings concentrate, is love. He loves man individually and collectively; he loves humanity; he loves creation, nature, the neighing of a horse, the flight of a bird, the rise of a fish, the perfume of flowers, the growth of plants, the clearness of water, the majesty of ocean are joys to him.... Of his universal love I like to quote this proof. After a painful examination of his wound, I heard him say, 'Very devils, those Bersaglieri V!' and this not as an expression of anger but of admiration."

THE GERMAN UNIVERSITY DEGREE TRADE. We are glad to report the trade of obtaining German degrees for Englishmen to be in a flourishing condition, the dealers are enabled to pay for their advertisements, and purchasers continue to be found. We have already published the price of Giessen, Jena, and Erlangen degrees (Giessen: Ph.D., £14: 10.; LL.D., £22: 10. Erlangen: Ph.D. £15; and Jena, Ph.D., £15), and we are now enabled to give the latest price current for Rostock, in Mecklenburg Schwerin. An individual, professing to be the correspondent of the University of Rostock (which, it may be remarked, can only boast about 250 members), now circulates, "in strict confidence," of course, a printed tariff among those who reply to his advertisements, designating the original vendors of the degrees "a distinguished and ancient Prussian German (*sic*) University, established at the commencement of the fifteenth century." We subjoin the latest prices:—Ph.D. and M.A. together, £12: 12 (entrance, £2: 2, and diploma £10: 10); LL.D., £17: 13 (entrance £3: 3, and diploma £14: 10); and M.D., £30: 3 (entrance £3: 3, and diploma £27). The D.D. is granted as an honorary distinction to clergymen who have previously been customers. Fees equal to double the entrance-fees are payable to the agent by the candidates, by way of commission, on the diploma being obtained, and if you assure the agent "that your intention is to proceed" for the degree, he will (in return, and without knowing who you are, or what are your qualifications) "assure to you the certainty of obtaining the diploma." We shall be glad to complete our list by including the prices current of any other university where degrees are granted, *in absentia*, at fixed prices. (*Mining Journal*.)

OUR TROOPS IN INDIA. The great mortality which has been supposed to belong to India is no more necessary in India, than anywhere else, and people would die off anywhere in the world as they die off in India if they were exposed to the same dangers. It is now settled beyond dispute that it is not the heat of India which makes our soldiers and their wives and children, and the civilians from this country, and the natives themselves sick and die. It is now proved that the heat of itself offers no obstacle to man or woman of any race living to a good

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

EXCISION OF THE KNEE-JOINT: IS IT A JUSTIFIABLE OPERATION?

By W. MICHELL CLARKE, Esq., Surgeon to the Bristol General Hospital; Clifton.

THERE is scarcely any subject which the surgeon can contemplate with greater satisfaction than that of excision of joints, in the great success and advantage of which is found, I think, one of the greatest improvements of modern surgery. The number of useful limbs which are now annually saved by its adoption, and which but a short period since would have been condemned to removal, is indeed a cause for the greatest congratulation and thankfulness.

This position will, I believe, without any opposition, be conceded with regard to excision of the shoulder and excision of the elbow; the small mortality of these operations, and the very useful limbs they secure for the patient, having silenced all opposition. I had said all; but there has been, not long since, one voice of considerable authority raised against these operations in general; and I mention it here, because it appears to me to express an erroneous opinion. In Mr. Travers's work, entitled *Further Observations in Several Parts of Surgery*, published in 1860, there occurs the following:—"Consequently, we find that few of the successful cases survive long, to say nothing of those who sink within ten days or a fortnight after the operation of excision. Whatever may be said to the contrary by interested witnesses, I believe it will eventually be admitted, in the face of an unvarying experience, that these docked or curtailed members are comparatively useless; in the lower extremities, certainly." That such a remark upon so important a subject should have been made so recently, seems somewhat extraordinary; but, with successful cases of excision of the elbow occurring very frequently, and of the shoulder and knee less commonly, but yet not rarely, there need be no fear of such an opinion producing any very serious or damaging change of practice.

There can be no doubt that the operation which I am discussing, so far as it concerns the shoulder and the elbow, is settled upon too secure a success to run any risk of being again given up. At once safe and simple, it is done with less shock to the system than amputation; whilst, instead of leaving the patient mutilated and deformed, with a stump either useless or only capable of having attached to it some imperfect mechanical appliance, it commonly gives him a limb scarcely less useful than that of which he was possessed before the access of his disease.

But, whilst all this may be fairly affirmed of the operation as it affects the shoulder and the elbow, the same cannot yet be said of it as regards the hip and the knee. With reference to these two joints, the question may, perhaps, be still considered to be open; at all events,

there is a sufficient number of respectable opponents to make evidence upon the subject admissible, and to make it desirable that it should be kept before the profession, and that cases for which the operation is peculiarly appropriate, and which have been successful, should be brought prominently forward. No less desirable is it, on the other hand, that unfortunate cases, or cases which have not a result that tells in favour of the operation, should be candidly published.

No operation has been received with more favour and enthusiasm than excision of the knee, when it was revived by Mr. Fergusson in the year 1850. This was owing very much to the skill and authority of the operator, but especially to the success of some cases which were published by Mr. Jones of Jersey, and to the very interesting, not to say exciting papers, which were inserted by that excellent surgeon in the *Medical Times*. Between the years 1855 and 1860, it was performed very frequently; and a very great success was attributed to it. Lately, however, the tide appears to have turned; and the operation, which has never been adopted by some surgeons of very high authority, seems likely to go out of favour even with others who at one time said great things in praise of it.

There are not wanting, however, the proofs of many cases having been brought to a very successful issue. There are cases recorded in which, a sufficiently long time having elapsed to test them, the patients have retained exceedingly useful limbs; and a careful examination of the whole subject does not show that this proceeding is incapable of resulting in a great success; on the contrary, it has, as Dr. Hodges remarks, occasionally yielded brilliant results. The reason, then, that excision of the knee still remains an unsettled question, is not to be found in the fact that no useful limbs have been preserved; but rather, I think, in the circumstance that these results, compared with the frequency of the performance of the operation, have been so few, whilst the deaths and failures have been so many.

The statistics that have been furnished upon this subject are indeed so unfavourable to the operation, that unless we be prepared to forego its performance altogether, we must be ready to offer some reason for the large number of failures; and this, I imagine, is to be found chiefly in the readiness with which the operation was taken up at the period above mentioned, and that for a time there was no careful selection of appropriate cases. However sanguine and hopeful of success we might be, we could hope for no other result than death if we undertook this operation for acute abscess, or for malignant disease, or in patients already dying of tuberculosis; yet in such cases, and in how many it would be difficult to find, this proceeding has been adopted.

Another reason for the want of success, although one not so forcible, may, I think, be found in the want of proper care of the patient after the operation has been performed; for, although it be easy of performance, and producing no great immediate shock, nothing requires more careful or more tedious watching in order to bring the case to a successful issue.

The latest statistics, and the most damaging, have been published by Dr. Hodges, who has collected from various sources 208 operations. (*Brit. and For. Med.-Chir. Rev.*, July 1862, p. 225.) Of these, 69 died, 60 directly, and 9 indirectly—i. e., after amputation had been performed. In 33 more cases, amputation was done; and in 14 others, the limb thus saved was more or less useless. Thus the failures amounted to 116, or more than half of the whole number; whilst this unfavourable view of the case is still further increased by the fact that a considerable number of the remainder are not properly accounted for.

In an article in the *British and Foreign Medico-Chirurgical Review*, from which the above figures are taken, Mr. Holmes has given a short account of 95 cases

collected from the London hospitals. Of these, 27 died, 8 underwent amputation, in 2 the limb was reported useless, and of 10 the accounts of the result are unsatisfactory. If these numbers be further examined, they will be found to give a product a little more favourable than the statistics of Dr. Hodges, but not so much so as materially to alter the position of the operation. If we compare them with the most unfavourable that have been recorded of amputations of the thigh, they will still show a high mortality; whereas, if they be compared with the more favourable returns of those operations for disease of the knee-joint, with which only, indeed, they ought to be compared, they show a very poor proportion of recoveries indeed. Teale has given, in his work *On Amputation* (p. 6), a table arranged from the *Medical Times and Gazette*. Of these, 159, performed in London hospitals, were for disease; and 1 in 4½ died. Of 134 performed in provincial hospitals, 1 in 4 died. But more to the purpose are 85 cases published by Mr. Bryant in the *Medico-Chirurgical Transactions*, and 35 by Messrs. Cooper and Holmes in the *Medical Times and Gazette* (vol. i, 1861). Of these, 1 patient in 7 died. These give a much more favourable mortality than the statistics of excision of the knee above quoted; whilst others, published by Mr. James of Exeter in the *Transactions of the Provincial Medical Association*, give a still more favourable view of the recoveries after amputation for disease of the knee.

I need not go into the statistics that have been published by Mr. Butcher and Mr. Price; for these, although showing a more favourable result than those of Dr. Hodges and Mr. Holmes, give still a higher mortality

than the return of amputations given by Mr. Bryant. My object now is rather to bring before you such an account of the operation as performed during the years 1860, 1861, 1862, as I have been able to collect; which, I thought, from the selection of cases having been better made, and the operation and after treatment having been better understood, might show an improving result. I was also especially desirous, considering the circumstances under which we meet, to give a short statement of the cases that have been operated upon in this city; and, lastly, to show you a patient of my own whose knee I excised nineteen months since.

I have gone carefully through the journals and papers to which I have had access for the three years just mentioned; viz., *Medical Times and Gazette*; *Lancet*; *BRITISH MEDICAL JOURNAL*; *Edinburgh Medical Journal*; *Dublin Quarterly Journal of Medical Science*; and *British and Foreign Medico-Chirurgical Review*; except the *Dublin Quarterly Journal* for Nov. 1862. I have found a record of 54 cases. Of these, only 6 died, or 1 in 9. Of these 6, 1 had undergone amputation previously to death; and, besides this one, 5 others suffered amputation, but recovered. The immediate result of these 54 operations is easily arrived at, and appears to be highly encouraging; but I think that statistics of this sort, although of the same kind as those which have told so much against the operation, are altogether unsatisfactory. The publication of the cases in the periodicals seems to be quite a haphazard kind of thing; no choice of time or circumstance having been made by the reporters, so as to show the true bearing of the operation in its ultimate effects.

EXCISIONS OF THE KNEE-JOINT.

Bristol Royal Infirmary.

No.	Name of Operator.	Age.	Date of Excision.	Immediate Result.			Date when last seen.	Condition of Limb, and capability of using it, when last seen.
				Recov.	Ampt.	Died.		
1	Mr. Harrison	A young man	No note	Yes	..	..	No note	When last seen, Mr. Harrison says he was carrying on a flourishing business in the sale of eggs about the streets, walking (as he asserted) twenty miles a day without inconvenience.
2	Mr. Prichard	28	1858, Nov. 9	Yes	..	..	A year since	That is, four years after the operation; and afterwards, Mr. Prichard wrote me that he had heard of him on Aug. 3, 1863, and he was then in full work as a farm-labourer.
3	Do.	37	1859, Mar. 10	Yes	..	..	No note	Knee became quite sound in ten weeks. Not quite straight. Went into Wales, and has not been heard of since his discharge.
4	Do.	41	1859, May 26	Yes	..	..	6 mos. ago, Aug. 1863	He was walking well. Could bear the whole weight of the body on the leg. The knee was stiff, and very straight. This patient was operated upon three times.
5	Do.	42	1861, Mar. 19	Yes	..	..	6 mos. ago, Aug. 1863	Sent out with knee quite sound. Seen six months ago. The knee sound, and able to walk well. Not much shortening. Health perfectly restored.
6	Mr. Hope	8	1862, Feb. 21	Yes	..	..	3 mos. ago, Aug. 1863	Could walk without a stick, but generally used one. He walked down stairs, the height of two flats of the Infirmary, without a stick.

Bristol General Hospital.

No.	Name of Operator.	Age.	Date of Operation.	Immediate Result.			Date when last seen.	Condition of Limb, and capability of using it, when last seen.
				Recov.	Ampt.	Died.		
1	Mr. Lousdown	12	1854, Sept. 26	Yes	..	..	Dec. 1862, or Jan. 1863	She was then walking without any stick.
2	Mr. Coe	Little boy	No note	Yes	..	..	No note	He left the Hospital with a very good limb; but afterwards met with a fall and injured it, though to what extent I do not know.
3	The same	Abt. 15	No note	..	Yes	..	No note	Amputation was done on account of a painful and osseous condition of the integuments of the foot. The knee was admirably restored.
4	The same	Abt. 26	No note	..	..	Yes	..	He died from exhaustion, about a week or ten days after the operation.
5	Mr. Clarke	62	1862, Jan. 2	Yes	..	..	1863, August 3	Limb quite sound. Walks upon it well and firmly. Union very firm. Can walk ten miles with considerable ease.
6	The same	7	1863, April 26	Yes	..	..	1863, August 4	Sufficient time has not yet elapsed for proper report; but the boy is doing well, and promises to recover with a good limb.

Medical Times and Gazette, 1860, 1861, 1862.

No.	Source of Information.	Age.	Name of Operator.	Date of Excision.	Immediate Result.			Date when last seen.	Condition of Limb, and capability of using it, when last seen.
					Recov.	Amp.	Died.		
1	1860. Vol. i, p. 306	16	Dr. King, Hull Infirmary	Dec. 6, 1859	..	Yes	..	Apl. 2, 1860.	A small part of the wound remained unhealed. There appeared to be fibrous union between the bones, not very firm. Splint still retained. Girl in very greatly improved health.
2	" " 459	11½	Mr. C. Heath	1858	Yes	..	..	Specimen shewn Pathological Society, Apl. 17, 1860 May 9, 1860	Boy had been able for months to get about most satisfactorily. Limb shortened 2½ inches. Sinuses still wept occasionally.
3	" " 529-4	14	Mr. Fergusson	Mar. 3, 1860	Yes	..	..		No note of condition; but on May 1st, a gutta percha splint was still kept to the back of the leg.
4	" " 550	14	Mr. Symonds, Radcliffe Infirmary	Oct. 10, 1859	..	..	Nov. 5 Yes	..	Bony union was so firm that on forcibly separating the bones, <i>post mortem</i> , the break went partly through old bone. Liver enlarged and fatty.
5	Vol. ii, p. 109	15	Mr. Cadge, Norfolk & Norwich Hosp.	May 28, 1858	..	Sept. 24	Yes	..	Amputation was done on account of declining strength. Bone remaining much enlarged, and discharge profuse. There was no attempt at union.
6	" " 246	abt. 14	Mr. Curling	3 months since	Yes	..	..	Sept. 1860	Limb in good position; but still considerable discharge, with probable disease of bone remaining.
7	" " 240	10	Mr. Critchett	12 mos. since	Yes	..	..	" "	Able to walk on the limb, though with a considerable limp. Anchylosis fibrous. Some motion. Tibia and femur joined at an obtuse angle.
8	" " 456	9	Mr. Tapp, Dorset County Hospital	May 15, 1860	Yes	..	..	Sept. 13, 1860	Limb quite firm. Able to walk without crutch or stick, and with but a slight limp. Six months afterwards limbs nearly of equal length. Report accompanied by engraving, which shews a fair limb.
9	" " 479	12	Mr. Curling	June 21, 1860	..	Oct. 11	..	..	Probably same case as No. 6; but this not stated. The knee at the time of amputation was intensely painful. The old sinuses had reopened, and a new one formed. No bony union. Child's health failing.
10	" " 595	25	Mr. Gent	7 months since	..	Amp.	..	..	Bones found in apposition anteriorly, and welded together by osseous matter. There were also small nodules of cartilage. In the head of the tibia, a piece of necrosed bone. This probably had kept up the discharge.
11	1861. Vol. i, p. 601	A young woman.	Mr. Fergusson	Mar. 1, 1856	Yes	..	..	May 18, 1861	Considerable mobility. Had been able to attend to her household duties; to run up stairs; to jump off a chair. Came under notice now on account of disease in the neighbourhood of the new joint; but quite unconnected with it.
12	" " 630	abt. 6	Mr. Price	May 2, 1861	Yes	..	..	No note	At the time of the report, she went out of doors daily; probably in a perambulator. No record of condition of limb.
13	" " 630	14	The same	May 23, 1861	?	..	..	No note	Child doing well; but record made too soon after operation.
14	" " 630	6	The same	..	?	..	..	No note	Ditto.
15	" " 518	19	Dr. Crompton, Birmingham	Dec. 26, 1860	Yes	..	..	Apl. 3, 1861	Able to walk easily with a stick. Wound not quite closed. Limb ½ to ¾ inch short. Patella loose, and plays naturally over the end of the femur. This was a primary operation for a gun-shot wound of the joint.
16	" " 519	17	The same	No note	..	..	Yes	..	Death from phlebitis. Crude tubercle in apex of each lung.
17	" " 11	7	Mr. H. Smith	6 years since	Yes	..	..	1861	Limb firmly set by bony anchylosis; 5 inches short. Tibia somewhat drawn upwards and backwards. Limb said to be most servicable. He walks from London to Hampstead Heath.
18	" " 182	10	Dr. Brotherton of Ailton	Jan. 1855	Yes	..	..	1858	Able to walk well, with a scarcely perceptible limp; 1½ inch shorter.
19	" " 182	9	Mr. Edwards	Feb. 20, 1857	Yes	..	..	Feb. 5, 1861	The limb has grown as much in proportion to the other limb as could reasonably be expected; 1 inch short.
20	Vol. ii, p. 218	18	Mr. Fergusson	April 7, 1861	Yes	..	..	Aug. 14	Limb quite firm. Position good. Muscles of the calf well developed. Shortening inconsiderable. Can walk well without crutches, but still uses them.
21	" " 58	13	Mr. Frith	July 10, 1857	Yes	..	..	June 3, 1861	Union solid, and bony. Considerable displacement. Shortening 1½ inches. The boy stated that the limb was very servicable to him. Could walk a considerable distance.
22	1862. Vol. i, p. 59	20	Mr. Hulke	Sept. 22, 1861	Yes	..	..	Dec. 12, 1861	A slight hinge-movement. A somewhat forward projection of the femur. With a light leather splint, she gets about the house comfortably. When she goes from home, she uses a crutch or stick.
23	" " 557	14	No record	Aug. 1861	..	Yes	..	..	The failure appears to have been from the limb getting into bad position, and from the patient being highly strumous. Mr. Lawson amputated.
24	Vol. ii, p. 31 & 276	20	Mr. Fergusson	June 14, 1862	Yes	..	..	No note	Before he was discharged, there was firm bony union, and he was able to bear a little weight on his leg. This operation was for deformity from anchylosis.
25	" " "	13	The same	May 7, 1861	Yes	..	..	..	This was for deformity resulting from anchylosis. A wedge-shaped piece was taken out, including femur, tibia, and patella. The wound healed well; and the patient, when last seen, was able to walk firmly and well. About 2 inches short.

Lancet, 1860, 1861, 1862.

No.	Source of Information.	Age.	Name of Operator.	Date of Operation.	Immediate Result.			When last seen.	Condition of Limb, and capability of using it, when last seen.
					Recov.	Amp.	Died.		
1	1860. Vol. ii, p. 108	37	Mr. South	Nov. 5, 1859	..	..	Yes	No record	There had been no union. He died after leaving the hospital.
2	" " 108	6	Mr. Solly	Nov. 9, 1859	Yes	..	..	Do.	Left the hospital with scarcely any perceptible shortening of the limb, being able to walk with ease and comfort.
3	" " 108	8	The same	Mar. 12, 1859	Yes	..	..	Do.	Left the hospital well. Limb half an inch short. He could walk with ease and rapidity.
4	" " 108	12	Mr. Le Gros Clark	Same	Yes	..	..	Do.	When he left the hospital there was firm bony union. Only a small portion of the wound uncatrised. The limb was but slightly shortened.
5	" " 108	6	Mr. Simon	Nov. 12, 1859	Yes	..	..	Do.	Sent from St. Thomas's to Margate. There was firm bony union, and only a slight amount of ulceration in the line of the incision.
6	" " 109	23	The same	Nov. 19, 1859	Yes	..	..	Do.	When he left the hospital there was firm union of the bones; he was able to get about, and was in very fair health.
7	" " 109	18	Mr. Gant	Oct. 31, 1859	Yes	..	..	Do.	Left the hospital with a sound and useful limb. Went to the Margate Infirmary to thoroughly re-establish his health.
8	" " 109	33	The same	Oct. 19, 1859	Yes	..	..	Do.	Could rest her whole weight on the limb.
9	1861. Vol. i, p. 482	17	Mr. Fergusson	Nov. 17, 1859 and 1860	Yes	..	..	April 25, 1861	This was really an operation for an ununited fracture. The knee had been previously excised, but united in bad position. Ultimately the leg was 5 ins. short; she could walk half the length of the ward without splint or crutches. Union very firm.
10	Vol. ii, p. 332	11	Mr. Price	Aug. 8, 1861	Yes	..	..	Oct. 1861	No definite report.
11	1862. Vol. i, p. 382	25	Mr. Fergusson	About 1856	..	Amp.	..	..	In this case, the patient had a good and useful limb for five years after the excision. She then fell down stairs and injured the excised knee. Upon attempting to resect the ends of the bones, the popliteal artery was wounded, and amputation was then performed at once.
12	" " 383	31	Mr. Skey	Dec. 17, 1861	Yes	..	..	Uncertain	He could walk about the ward with great ease and freedom. Length but little abridged.
13	" " 383	14	Mr. Paget	Feb. 1, 1862	Yes	..	..	No record	The patient was able to leave his bed. 2½ ins. short. The lower end of the femur projects forwards and outwards.
14	" " 406	13	Mr. Holmes	Aug. 9, 1861	Yes	..	..	1861? or Nov. 9, 1862	Limb quite straight and firm. He could tread upon it easily and without pain.
15	" " 407	Young wom.	Mr. Critchett	Jan. 9, 1861	..	..	Yes	..	Suffered from prolonged sickness. Never rallied. Sunk after the lapse of ten days.
16	" " 407	4	The same	2 yrs. since	Yes	..	..	1862	Reported as a successful case. No details.
17	" " 407	16	The same	4 mos. since	Yes	..	..	1862	Said to have every prospect of an useful limb. No details.
18	" " 407	6	The same	Mar. 13, 1862	..	..	..	Apl. 1862	Condition said not to be very promising. Reported too soon.
19	" " 408	11	Mr. Prescott Hewett	July 28, 1861	Yes	..	..	Aug. 29, 1861	Said to have been discharged three months after the operation. Two sinuses, apparently connected with carious bone, remained open. Union good. 1½ inch short. (There is a mistake in the dates, evidently.)
20	Vol. ii, p. 36	A boy	Mr. Canton	Jan. 11, 1862	Yes	..	..	July 1862?	Able to move about the ward on crutches. 1 in. short.

British Medical Journal, 1860, 1861, 1862.

No.	Source of Information.	Age.	Name of Operator.	Date of Operation.	Immediate Result.			When last seen.	Condition of Limb, and capability of using it, when last seen.
					Recov.	Amp.	Died.		
1	1860, p. 240	12	Mr. Quain	July 26, 1859	Yes	..	..	Nov. 30, 1859	By the help of a wooden clog to his foot, could get about, bearing on the limb.
2	1861. Vol. i, p. 370	11?	Mr. Baker	Sept. 1860	Yes	..	..	Apl. 1862?	Reported nearly well. No details.
3	Vol. ii, p. 171	17	Mr. Sympson	April 29, 1858	Yes	..	..	May 21, 1861	Limb 1½ ins. shorter. Scarcely smaller. Leg flexed at a very obtuse angle on the thigh. Union firm. Wound firm. The patient, with a somewhat thicker sole, walked about the house without a stick; but when out of doors used one.

Edinburgh Medical Journal, 1860, 1861, 1862.

No.	Source of Information.	Age.	Name of Operator.	Date of Operation.	Immediate Result.			When last seen.	Condition of Limb, and capability of using it, when last seen.
					Recov.	Amp.	Died.		
1	Jan. 1861, p. 690	26	Mr. Spence	No note	..	..	Yes	..	Died from pyæmia.
2	June 1862, p. 1141	13	Mr. Edwards	No note	Yes	..	..	8 wks. after operation	Wound healed. Patient could walk across the room
3	Same	22	The same	No note	Yes	..	..	3 wks. after operation.	Said to be recovering.

Dublin Quarterly Journal of Medical Science, 1860, 1861, 1862.

No.	Source of Information.	Age.	Name of Operator.	Date of Operation.	Immediate Result.			When last seen.	Condition of Limb, and capability of using it, when last seen.
					Recov.	Amp.	Died.		
1	Feb. 1861, p. 74	15	Mr. Canton	Nov. 3, 1859	Yes	..	..	12 mos. after operation.	After the lapse of several months, the patient walked out of the hospital cured. The excision was performed on account of forcible separation of the lower epiphysis from the shaft of the femur. Twelve months after the operation, the tibia and femur were firmly incorporated. The patient experienced no inconvenience, and had walked twelve miles without fatigue.
2	Same	8	The same	No note	..	Yes	..	..	Buy very restless; limb could not be kept in good position.
3	May 1861, p. 458	20	Mr. Tanner	Mar. 26, 1860	Yes	..	..	June 23, 1860	Limb straight; very little shorter than the other. He could walk very well.

If we try to further analyse the tables that I have made, we shall find that there are only nine instances in which a report of the condition of the limb is given at the end of twelve months or more after the operation; and of these I have thought it well to bring out the following particulars.

1. In one case (No. 17 of those from *Med. Times and Gazette*), the patient was a child 7 years old at the time of the operation, which, at the date of the report, had been done six years. The limb was firmly set by bony ankylosis, five inches short. The tibia was somewhat drawn upwards and backwards; but the limb was said to be very serviceable. The patient was able to walk from London to Hampstead Heath.

2. (No. 18 from *Med. Times and Gazette*.) The operation had been done more than two years. The patient, whose age was 10 years, was able to walk well, with a scarcely perceptible limp. The limb was an inch and three-quarters short.

3. (No. 19 from *Med. Times and Gazette*.) The operation had been done nearly four years. The child's age was 9; and the limb had grown as much in proportion to the other as could reasonably have been expected. It was only one inch shorter than the other.

4. (No. 21 of same table.) The age was 13. The time that had elapsed since the excision was nearly four years. The union was solid and bony. The shortening was four inches and a half; but the boy stated that the limb was very serviceable to him. He could walk a considerable distance.

5. (No. 7 of same table.) Age 10 years. Excision was performed twelve months since. He was able to walk on the limb, though with a considerable limp. Ankylosis was fibrous. There was some motion. The tibia and femur were fixed at an obtuse angle.

6. (No. 11 of same table.) The operation had been performed upon a young woman five years previously. There was considerable mobility. She had been able to attend to her household duties; to run up stairs; to jump off a chair. The case, however, came under notice at the time of this note on account of disease in the neighbourhood of the joint, but quite unconnected with it. I think, but cannot be quite certain, that this is the same case (No. 11 from *Lancet*) in which, upon an attempt being made, subsequently to the above note, to re-excite, the popliteal artery was wounded, and amputation compelled.

7. (No. 16 from the *Lancet*.) The operation was done two years before. Age 9. The case is reported as successful, but without details.

8. (No. 1 from *Dublin Journal of Med. Science*.) The case was examined twelve months after the operation. Age 15. The tibia and femur were firmly incorporated. The patient experienced no inconvenience, and had walked twelve miles without fatigue.

9. (No. 3 from *BRITISH MEDICAL JOURNAL*.) Age 17. Three years after the excision, the limb was an inch and a half shorter than the other, but scarcely smaller. The leg was flexed at a very obtuse angle. Union was firm.

The patient, with a somewhat thicker sole, walked about the house without a stick, but when out of doors used one.

In two other cases, the report seems to have been made more than twelve months after the operation, but the date is not quite clear; and, in one of these, it is said that the boy had been able to get about for months most satisfactorily. The limb was shortened two inches and a half; but the sinuses still wept occasionally. The other is reported nearly well; but no details are given.

The report of the remainder has been made at periods varying from six months to one month from the time of the operation; or the last note was made at the time of the patient's leaving the hospital, or whilst he was still in the hospital—at times evidently too recent to be of much value as to the final result of the operation. But it may be said of all these, or of almost all, that they promised well; and it is probable that many or most of them recovered with useful limbs.

This is all the information that I have been able to gather from a careful investigation of the reports of this operation for a period of three years; and, although it gives a more favourable view of the case than the figures that have been previously published, I do not think, as I have said before, that such reports are of very much value. They do, however, I think, serve to show that a certain proportion of useful limbs are preserved; and they also show that, from some cause, the mortality appears to be much diminished.*

I shall show, in the next place, that in this respect the cases that I have gathered correspond with the experience that we have had of the operation in this city; whilst, with regard to good recoveries, the result of the operation has been exceedingly satisfactory.

I have trustworthy particulars of twelve excisions of the knee that have been done in this city—six at the Infirmary, and six at the General Hospital. Of those that were performed at the General Hospital, I can write of my own knowledge. For the account of the Infirmary cases I am indebted to the kindness of Mr. Harrison, Mr. Prichard, and Mr. Hore. I believe that seven cases have been operated on at the Bristol General Hospital; but of the seventh case I have no sufficient information. The result of these our local operations tells very much in favour of the proceeding; and this is probably owing to the care which has been taken in the selection of the cases, and in the treatment subsequent to the operation.

There has been only one death. This occurred at the General Hospital; and it happened from exhaustion, after the patient appeared to have been rallying from the effects of the operation, and promised to do well. Of the remaining eleven, one underwent amputation. The knee in this case had perfectly recovered, and it ought to have been a very successful case; but a peculiar hyperæsthetic condition of the integuments of the

* For details of all these cases, see tables published with this paper.

foot came on; the boy was very impatient, and begged hard to have his limb removed. I am very loath to place this case on the side of the failures; because, after a good deal of care had been expended on the boy, the bones had united in admirable position; and, but for the condition of the foot, he had an excellent limb.

Of another case I must speak doubtfully. The patient, a little boy, left the hospital well cured, and with a good limb; but at some time subsequently, I do not know how long, he accidentally injured the limb that had been operated upon. This, again, is a case that I do not like setting down as against the operation, because the boy might by a misfortune have spoiled a sound leg.

We have now left nine cases; and of these, eight went away from treatment with recovered and useful legs. It is very important to notice that six were seen at long periods after the excision was performed; and that they continued well, and their leg remained sound and useful. These periods range from eighteen months to eight years after the operation. The remaining case is still under my care in the General Hospital, and promises to make a good recovery.

This case, as showing the effect of the operation upon a patient dying exhausted by disease, is a very valuable one. The patient, a little boy, aged 7, was admitted into the hospital for necrosis of the inner condyle of the left femur. There was a sequestrum lying in a considerable cavity; and a probe passed into the latter entered readily the knee-joint, which was full of matter. The boy was hectic, at the last point of exhaustion; and it was agreed, in consultation, that his leg must be removed to save his life. With the consent of my colleagues, I made, however, a preliminary exploration; and finding that, by gouging out the inner condyle of the femur, I could remove all the disease without sawing the bone very deeply, I substituted the operation of excision. The boy rallied immediately after the operation; better, certainly, than I should have expected him to have done after amputation; and up to this time, although he has had two slight attacks of erysipelas, he has gone on very well indeed. I cannot yet place him amongst the successful cases, because the bones are not firm; and, although it does not appear to be essential to the success of the operation that they should become so, yet I think it a result greatly to be desired.

The man that I propose to show you to-day I operated upon nineteen months ago; and I have not published his case before, because it is worse than useless to thrust these patients into print before a sufficient time has elapsed to test the limb that has been saved.

Except the man's age, which was 62 at the time of the excision, everything was very favourable. The disease from which he was suffering was ulceration of the cartilages, with a thickened and degenerated condition of the synovial membrane. He had endured intense pain, by night and day, for two years; and every sort of treatment had been tried in vain, including three applications of the cauterising iron and very long confinement upon a splint. He had often implored me to remove his leg, but was willing that I should adopt any other measure that would promise him a cure.

From the time of the excision he lost his pain, and slept well. He rallied from the operation; the wound healed right up by the first intention; and his progress to recovery, although very slow, was uninterrupted. The only point about which I had any difficulty was in securing the union of the bones; and this, I believe, is the most critical point of this operation. The shock is not greater, and the immediate injury to the parts is certainly less, than in amputation—a position which, I believe, will be fully upheld by experience when the cases for operation have been properly selected.

I have set myself only one question in this paper, because it would be impossible to enter into all the in-

teresting details connected with this subject on an occasion like the present. My investigation of the matter has afforded, I believe, a satisfactory answer.

Supposing an operation for disease of the knee-joint to be imperative, and that all treatment has been exhausted, the question must arise whether amputation shall be resorted to, or whether, by the substitution of excision, the surgeon shall attempt to preserve the limb of his patient. This position, whilst it will involve an anxious investigation of the subject, and long, and perhaps weary, watching after the operation has been done, will yet bring its comfort in the satisfaction that will arise from sparing a patient an unnecessary mutilation. There is no duty which we are called upon to perform that is more full of horror than the removal of the leg for disease of the knee, especially when the patient is a child. The stress of a terrible accident, or the value of an adult life, may do much to mitigate the painful feeling with which we proceed to amputate a limb; but when we have to deliberate quietly over a case of disease, or to deal with the limbs and lives of children, it is a great comfort to feel that, in appropriate cases, we have a less damaging and not more dangerous way of recovery.

I have always held the propriety of performing this operation—not lately so strongly, perhaps, as in its more early history; but I think that the evidence I have now adduced in its favour (and there is more forthcoming, if it were needed; as, *e.g.*, that Mr. Butcher, who has written the most and the best upon this subject, has done this excision four times, and every time has secured his patient an useful limb)—especially our own experience in this city—not only justifies the operation, but calls upon the surgeon who is about to amputate for disease of the knee-joint, first to show that the case is unfitted for the better operation of excision.

Transactions of Branches.

MIDLAND BRANCH.

AMPUTATION AT THE HIP-JOINT FOR FIBRO-PLASTIC TUMOUR OF THE THIGH: RECOVERY.

By C. H. MARRIOTT, M.B.Lond., F.R.C.S.(by Exam.), Surgeon to the Leicester Infirmary.

[Read July 2nd, 1863.]

EDWARD LEWIN, aged 13 years, residing in Leicester, was admitted into the Infirmary on December 9th, 1862. His parents are living, healthy; he has one sister, also healthy. His relatives on both sides have good health; there is no tendency to cancer, or tumours of any kind, amongst them. The patient had had no illness before this, except those of childhood.

Six or seven months before admission, he felt pain on the outer side of the left thigh; it began regularly every morning on first awaking, and usually lasted till 12 or 1 p.m. in the day. There was nothing visible at that time; no swelling nor redness. He had no injury of any kind. About three or four months before admission, he first noticed a swelling of about the size of a hen's egg on the outer side of the left thigh, at the junction of the lower with the middle third. It was hard, and immovably fixed in its position; it was painful, but handling it and pressing it did not increase the pain.

Six weeks before admission (Oct. 20), he applied to the hospital as an out-patient. There was then a swelling of about the size of the palm of the hand, firm, and tender on pressure; the skin over it was of natural colour. I thought it probable that it was subacute periostitis; and treated it with a few leeches, cold lotions, and iodide of potassium internally.

About a fortnight before admission, he called on me

in intense pain; it was then larger, and the skin over it was bright red. I fully expected that an abscess was forming, and recommended him to come into the hospital.

Soon after this, I was unable, through illness, to go to the hospital for some weeks; and, therefore, did not note the progress of the case.

Jan. 5th, 1863. He was extremely emaciated; his appetite was very bad. Pulse 108. He took beef-tea, eggs, and six ounces of wine. He suffered a great deal of pain on first awaking, about 5 or 6 A.M. He had been taking iodide of potassium with tincture of opium; and was ordered to take it now every morning. The tumour reached nine inches above the patella; and at five inches and a half above it, the limb measured fifteen inches and three-quarters in circumference.

Jan. 12th. Pulse 112, small, feeble. His appetite was much improved; tongue moist, slightly furred. He perspired moderately in night. The tumour measured, five inches and a half above the patella, sixteen inches and five-eighths; the sound limb, at the same height, nine inches. The surface of the tumour was undulatory, being most prominent at the outer side. The skin was dusky, and mottled with lurid red patches of dilated capillaries and small arteries; large dark veins ramified here and there over the surface. Above the tumour, the femur was felt to be thicker up to the great trochanter than on the right side. There was no enlargement of inguinal glands, longitudinal or transverse, nor of the iliac or lumbar glands, to be felt. The heart and lungs were healthy.

Jan. 15th. The tumour at the above-mentioned spot measured seventeen inches and three-eighths in circumference.

Amputation at the Hip-joint was performed by an anterior long flap and a posterior short one. Pressure by a key was made above the brim of the pelvis. The anterior flap was grasped tightly in both hands, and held till the arteries in the posterior flap, three in number, were tied. In the anterior flap, the femoral and profunda, with four others of large size, were ligatured. Occasionally an artery spurted from the anterior flap, and the blood lost was estimated at from half to three-quarters of a pint. The femoral artery was cut at the lower margin of the flap. Four sutures were put in; and the stump left open for three hours. The flaps were then brought together by the sutures and strips of adhesive plaster; a fold of dry lint was applied; and a bandage over all. There was no oozing of blood.

Immediately after the disarticulation, he became very faint, and nearly pulseless; his lips turned blue. Brandy and ammonia were given as soon as he could swallow; he vomited several times. After lying on the table about three-quarters of an hour, he was placed in bed in a small ward with no other patient in it.

8 P.M. Pulse 144. He vomited once since the operation. His skin was warm; lips less pallid. He was in great pain. He was ordered to take at once fifteen minims of tincture of opium and fifteen minims of chloric ether in a draught; and to have calves' feet jelly.

10 P.M. Pulse 152. He was pallid; but the skin was very hot. He had no vomiting, and expressed himself as more comfortable.

Jan. 16, 9 A.M. Pulse 152; respiration 28. He slept at intervals through the night, and was in very little pain. The tongue was coated yellowish brown. He had taken the jelly, etc., fairly well. He was ordered to have three ounces of brandy; and an effervescing draught with thirty minims of aromatic spirit of ammonia every four hours.

3 P.M. Pulse 132.

9 P.M. Pulse 160. He felt comfortable. The bowels had acted spontaneously. The urine was perfectly clear, and normal in quality. He was ordered two pints of extra strong beef-tea, and a pint and a half of milk.

Jan. 17th, 10 A.M. He slept quietly for single hours during the night; he was in no pain. The tongue was cleaning at the tip and edges. He took his food very well. Pulse 144; respirations 24.

10 P.M. There was no pain. Pulse 136.

Jan. 18th, 9 A.M. Pulse 132. He slept well. The bowels acted slightly in the night. He had some pain in the stump this morning. There was slight swelling and redness in the groin, and in the upper part of the scrotum. He was ordered to have boiled sole for dinner.

9 P.M. The bowels had acted again. He was slightly restless. Pulse 116. The dressings were ordered to be wetted. He was directed to take eight minims of tincture of opium immediately, and to omit the effervescing draught.

Jan. 19th, 10 A.M. Pulse 128. He slept well. The blush was fading, and entirely confined to the scrotum. The bandage and lint were removed; the stump was very healthy. It had united by the first intention at both angles; thick healthy pus exuded from the centre. The plaster and sutures were undisturbed. Warm water dressing was applied. He was ordered to take, three times a day, seven minims of dilute nitro-muriatic acid and fifteen minims of compound tincture of gentian in an ounce of water.

Jan. 20th, 10 A.M. Pulse 128. He was restless till 11 P.M.; he then took an opium draught, and slept well afterwards. The bowels acted slightly in the night. The sutures and one strip of plaster were removed. The discharge was thin from some parts, and slightly tinged with blood.

Jan. 21st, 10 A.M. He slept well without an opiate. The bowels acted twice. A large quantity of dark grumous discharge, broken down blood, came from the centre of the stump where most of the ligatures were. Pulse 120. He was ordered to have a grain of disulphate of quina added to each dose of his medicine; and to have boiled fowl, and four ounces of brandy instead of three.

8 P.M. Pulse 120. The discharge was very offensive. Chloride of lime lotion was ordered.

Jan. 22nd, 10 A.M. Pulse 120. The first ligature was taken away.

8 P.M. The pulse was 112.

Jan. 24th, 10 A.M. Pulse 124. Three ligatures were taken away. A small spot of skin over the sacrum, dark red; collodion was applied, and the patient turned over on to the right side.

Jan. 25th. Pulse 124. Two more ligatures were removed. The sacrum was less red. He was ordered three pints of strong beef-tea.

Jan. 26th. Pulse 128. There was slight excoriation over the sacrum, only skin deep. The brandy was increased to five ounces; and he was ordered a mutton chop daily.

Jan. 27th. Pulse 112. The bowels were regular. He slept well. Two more ligatures were taken away.

Jan. 28th. Pulse 132. The femoral ligature and the last remaining were taken away (13th day). Red wash and water (equal parts) were applied to the stump.

Jan. 29th. There was a small cutaneous slough over the sacrum.

Feb. 1st. The slough had separated; the sore was granulating healthily.

Feb. 26th. From the last date, he rapidly improved in his general health; and the stump healed, except two sinuses which discharged thin watery fluid on pressure (six weeks after amputation). His pulse had been counted at various hours nearly every day; but up to this date, it had never been under 120 in the lying posture.

March 1st. He was allowed to get up, but was extremely weak and helpless. Pulse 100 in the lying posture.

March 21st. There were still two sinuses; one at the

internal angle, the other in the centre of the stump; they discharged watery fluid with flakes in it. They were ordered to be injected with red-wash. They communicated freely; as shown by the lotion injected into one escaping by the other. His weight was 3 stone 10½ lbs. His appetite had been failing last ten days.

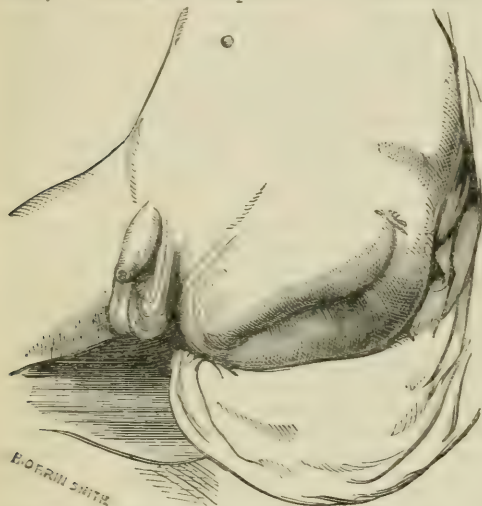
March 28th. Weight, 3 stone 13 lbs. The sinuses still discharged considerably. They were ordered to be injected with solution of sulphate of copper (two grains to one ounce).

April 4th. Weight, 4 stone 0 lb. 8 oz.

April 11th. Weight, 4 stone 0 lb. 10 oz.

April 18th. Weight, 4 stone 3 lbs. 8 oz.

April 21st. The sinuses finally closed four days ago (17th). The cicatrix was perfect. His bowels were re-



gular; his appetite good. He was in high spirits, and could walk out well on his crutches. The pulse was 84 in the sitting posture. He was discharged from the hospital to-day cured.

May 25th. He had been in the country for nearly a month, and was much stronger and stouter. His weight now was 4 stone 12 lbs.

On July 8th, he weighed 5 stone ½ lb; and was perfectly well.

Description of Tumour. On section through the most prominent part, it was soft, elastic, and almost gelatinous, for about an inch and a half from the surface; it then became firmer; and here and there bony spicula were interspersed, so as to give a grating sensation to the knife cutting through it. In one part, close to the surface on its outer side, was an ill-formed cavity, of the size of a cob-nut, containing pulpy matter in a semi-fluid state. There was no lining membrane bounding it. The colour of the section was grayish, with numerous streaks of blood-vessels running through it, and the soft matter was intersected largely by white fibrous bands. When squeezed, it broke down under the pressure, but no juice exuded. The femur was not thickened; but the periosteum was thickened up to the neck.

Microscopic Appearances. The soft matter was composed of large spherical, oblong cells, containing large nuclei and nucleoli, and filled with granules; a few large oval myeloid cells, containing generally two nuclei, numbers of elongated nucleated cells, fusiform and caudate; numerous spherical cells, with large nuclei almost filling the whole cell. There were great numbers of free nuclei; and a large quantity of granular particles, for the most part made up of fat, as shown by their appearance and their solubility in ether. A few nucleated fibres and

some fibres of yellow elastic tissue were present. The whitish bands were made up of well-marked wavy fibres. The spicula showed no true bony structure; and dissolved in acetic acid.

REMARKS. The mortality in this operation, as might be expected, is considerably greater when done for severe accidents, as railway crushes, musketry wounds, etc., than for the removal of disease. Mr. S. Cox, in 1845, published a table of 84 cases; of these 58 died, giving a mortality of 69 per cent. In 1852, Dr. S. Smith collected a number of cases, and others since have been added by Mr. Lane, in all 139 cases; of these 91 died, giving a mortality of 65.46 per cent. In 102 out of the 139, the causes for the operation were stated: 62 were for injury—of these 47 died, giving a percentage of 75.8 deaths; 40 were for disease—of these 21 died, giving a percentage of 52.5 deaths. In the Crimean war, the operation was performed on twelve patients, and all died.

In the present case, the nature of the disease was most probably fibro-plastic, undergoing fatty and calcareous degeneration. Before the operation, this was extremely uncertain; but one point against its being encephaloid, and, therefore, in favour of the operation, was the freedom of the lymphatic glands from any implication in the disease. The great extent of the tumour, reaching to within four inches and a half of the groin, and the periosteum being thickened up to the neck of the bone, necessitated the removal of the limb at the hip-joint; for any operation short of this would not have removed the whole of the diseased structures, and if it had been attempted there would not have been room to make the necessary flaps.

Again, the internal organs were healthy; and the tumour growing as it did (*viz.*, one inch in circumference in four days), in his exhausted state, must have rapidly destroyed him.

The key on the artery over the brim of the pelvis entirely controlled the flow of blood through the femoral; and, with the compression of the anterior flap by the hands, formed a very efficient means of arresting the hæmorrhage.

NORTH WALES BRANCH.

ON NEVUS.

By T. T. GRIFFITH, Esq., Wrexham.

[Read July 7th, 1863.]

In the following imperfect *résumé* of the different modes of treating nevus, illustrated by a few cases, I prefer using this simple designation to the more complicated and less handy terms of telangiectasis, aneurism by anastomosis, erectile tissue, and cirroid aneurism.

Excision. The subject was a delicate girl, about 5 years old, with a nevus spreading across the bridge of the nose. The incisions were too limited; and in a year or two the disease returned, requiring a second operation. On both occasions, the bleeding was violent; and on the last so much so, that the little patient fainted before I could pass the ligature for closing the wound. The operation succeeded; and, at the end of twenty years, a mere line marks the spot.

On this account, excision commends itself where the nevus is on the face, is not very extensive, and the bleeding can be quickly controlled.

Pressure. The next subject was a healthy boy, aged 12, in whom the nevus was fixed on the frontal bone. Two or three recurrences of severe hæmorrhage made interference necessary. As there was good counter-pressure, I applied firm pressure as recommended by Mr. Abernethy, with complete success.

Vaccination. This I employed in the case of a young lady with a nevus on the bridge of the nose, increasing in size. It answered perfectly; but has left the ordinary mark of vaccination.

Strangulation. The ligature was employed in three cases in which the nævi were formed, on the forehead, on the scalp close to the edge of the anterior fontanelle, and on the chest, respectively. The ages were 12 years, 21 weeks, and 15 months. In the last case, the nævus was of the size of a half-crown, situated a little above the nipple, and was rapidly spreading. In each of these cases, a needle with a double ligature was drawn beneath the tumour and cut off. Two sewing-needles were then passed at right angles to each other underneath, and at a sufficient distance from the extreme edges of the nævus. In the case of the largest nævus, a groove for the ligature was cut through the sound skin, and the threads, drawn under the free ends of the two needles, were so tied and tightened as to produce complete strangulation. Sloughing soon followed. No untoward symptom occurred; and a sufficient time has elapsed to show that the disease will not return. In the last case, chloroform was used; and the tumour was injected with tincture of sesquichloride of iron, which effectually prevented any loss of blood. An unsightly cicatrix makes this procedure objectionable in the exposed parts of the face and neck.

A case will sometimes present itself in which a congenital nævus will increase; then become stationary; and ultimately disappear, or nearly so. Such a one is now under observation; and it is the more remarkable as the child (aged 4) suffered severely in the last winter from hooping-cough; and it is since its cessation that the favourable change in the nævus has taken place.

In the following case the tumour was entirely subcutaneous.

CASE. Removal of Erectile (?) Tumour from the Cheek. On September 11th, 1841, a healthy woman, aged 35, was admitted into the Infirmary on account of a tumour occupying the right cheek. She first perceived it twelve years previously; and as it has for some time been increasing in size, it was decided, after a consultation with my colleagues, to remove it.

It extended from the zygomatic arch nearly to the lower edge of the lower jaw, and immediately in front of the parotid gland. It had a firm lobular feel, excepting a central projecting point, which was slightly elastic. It hung by a thick pedicle from the under part of the zygoma; it was moveable. It lay immediately under the skin, which was healthy in appearance; there were no enlarged glands. An exploratory puncture was made, but no fluid followed.

The removal was effected by a semilunar incision with its convexity towards the mouth, and near its angle, so as to avoid the parotid duct, if lying (as proved to be the case) over the tumour. A small artery requiring a ligature was divided; and the separation of the tumour was afterwards chiefly effected with my fingers and the back of the scalpel. The parotid duct ran horizontally across the tumour, and was raised by a Pellier's speculum till the tumour was removed. The pedicle was ligatured and divided near its origin from the zygoma. There was, at one point, slight adhesion to the buccinator muscle. The edges of the wound were brought together, and united by adhesion; and in eleven days, the patient left the Infirmary with only a linear scar. I saw her some time afterwards, but there was no return of the disease.

On cutting into the tumour directly after its removal, blood of different shades of colour flowed from it, leaving nothing but a beautiful reticular structure of vessels and condensed cellular tissue, the whole enclosed in a firm, smooth cyst of fibrous texture. It was partially lobular; its most projecting part had a purplish hue. In its character, it seemed most nearly to resemble "erectile tissue," as described by Dupuytren. The history of its growth gave no reason for supposing that it was congenital.

Reviews and Notices.

SPECIAL THERAPEUTICS: an Investigation into the Treatment of Acute and Chronic Diseases by the Application of Water, the Hot Air Bath, and Inhalation. By J. C. LORY MARSH, M.D.; Member of the Royal College of Physicians, etc. Pp. 132. London: 1863.

It is a subject of great interest, that which Dr. MARSH treats in this work; and his remarks are worthy of the most attentive consideration from every practitioner of medicine. We have been so much accustomed to look on medicinal treatment as consisting in the application of agencies ordinarily foreign to the body, that many of us have all but lost sight of the great influence which is exerted on the system by certain agents always at hand, and forming, indeed, a part of the accessories of life. Again, as Dr. Marsh points out, the internal surfaces of the body (especially the stomach) have been regarded as the medium through which our treatment is to be effected, and one of our principal objects habitually is to call forth the activity of some one or other of the internal secreting or eliminating organs, or to seek to act on the skin by the internal administration of medicines; while the means of acting directly on the large extent of eliminating, if not of absorbing surface, of the skin, have been comparatively neglected.

But it were impossible that a physiological agency of such power as is afforded by the cutaneous surface could altogether escape notice. Hence, in opposition to the neglect to which allusion has just been made, there has been a violent reaction; and men of limited ideas in science, but with an acute perception of the advantageous position to be gained by taking under their special protection the neglected skin, and the equally neglected means of acting directly on it, have cried up the use of water and the hot air bath as panaceas for all diseases, with results that have shown the absurdity of their pretensions. This, in its turn, has caused many practitioners of regular medicine to look on these therapeutical agencies almost as inventions of the evil one himself, and to eschew any practice having an approach to that of the disciples of the "hydropathic" and such like dogmata.

But, here as everywhere, to derive an argument against the legitimate use of a thing from its abuse is altogether mischievous. The data which we have, incomplete though they be as yet, are sufficient for forming a tolerably legitimate conclusion, which shall hold the judicious middle course between the two extremes. Here is the position of the case.

The skin is an important secreting organ, and performs an important part in relieving the system during the course of many diseases.

The functional activity of the skin is capable of being increased by the application of certain agencies; viz., water and hot air.

Experience has shown that use may be made of these agencies with benefit in the treatment of some diseases; and therefore—

The application of these agencies is one of the proper and legitimate means which should be used in the treatment of disease; under proper indications, and with the same care and discrimination

that we exhibit in the choice of any of the remedies which we administer internally.

This is what the author of the book before us aims to point out to the notice of the profession. He treats in succession of Hydro-therapeutics; the Hot Air Bath; and Inhalation.

After some remarks on the extreme views to which we have already alluded, Dr. Marsh states his object, in regard to the use of water, as follows:

"As regards the use of cold water, we shall treat chiefly of its value in acute disease, especially in those diseases which fall principally upon the skin, and also in some chronic skin-diseases; and for such use of water, applied in the treatment of those disorders for which its use is more generally indicated, and to which in particular it is capable of being applied, we would employ the term Hydro-therapeutics, as distinguished from that indiscriminate and empirical use of water in all diseases, real and imaginary, to which the professors of the art, for science it can scarcely" (not at all, we would say) "be called, have chosen to fix the name of hydro-pathy."

The indications for acting on the skin in disease are, Dr. Marsh points out: the hot, harsh, dry condition of the skin accompanying high fever and rapid pulse; the presence of symptoms of oppression in the nervous centres through deficient aëration of the blood; the existence of "a correlation between any affection of the skin and of some internal organ more intimately connected with life, the affection of the one increasing as the other decreases"; and the manifestation, in chronic disease, of a disorder on the skin, apparently acting as a safety-valve. The first three of these indications are specially marked in scarlatina.

Whether Dr. Marsh's explanation of the mode in which the application of water acts in acute disease—that it relaxes spasmodic constriction of the sudoriferous ducts, etc.—be correct or incorrect, he makes out a good case in favour of the practice. He does not, however, attempt to claim originality; but very honourably disinters from its unmerited oblivion the memory of the late Dr. Currie of Liverpool, who, at the end of the last century, employed with great success cold affusion in febrile diseases, and laid down rules for its application which, if carefully carried out, would probably have gained for this mode of treatment a more extensive acceptance than it has hitherto enjoyed. We must refer our readers to Dr. Marsh's book for an excellent outline of the course of practice followed by Dr. Currie. That physician employed the application of water in typhus and intermittent fevers, in influenza, and in scarlatina, and even in traumatic tetanus. His use of it, however, was fitted to the stage of the disease and the state of the patient; and a perusal of his works, or of Dr. Marsh's abstract of them, will shew that he exercised, with evident benefit to his patients, as judicious a discrimination in regard to the use of water as any modern rational practitioner would exercise in the administration of tartar emetic, mercury, or stimulants.

If, indeed, here as in other cases, proper precautions be not attended to, the remedy may prove only the gate of death.

"Dr. Currie mentions that, in two cases of scarlatina, of the most malignant nature, the patients were taken out of bed under the low delirium, with the skin cool and moist and the pulse scarcely perceptible, in which state several

gallons of cold water were poured over them on the supposed authority of his book, and, as might be expected, with an almost immediately fatal result. Such a powerful mode of treatment is not to be entrusted to other hands than those of a careful and skilful medical adviser."

Dr. Marsh refers, among the personal observations which he has made on the effects of the water treatment, to the results which he derived from it in 1842, while in medical charge of a pauper establishment for children at Tooting, in which "a most malignant epidemic of scarlatina" broke out.

"Every treatment appeared equally unavailing, until the application of immersion in cold water, or sponging the body with the same, was adopted: afterwards, every case in which the treatment by free application of cold water was used recovered, and but one case presented any subsequent sequelæ of the disease."

The notes of eight specimen cases are given by Dr. Marsh; their characters being: 1, Sore-throat and constitutional symptoms; rash not developed, but brought out by the cold bath; 2, Throat-symptoms malignant, rash imperfectly developed, but brought out by cold sponging; 3-6, Throat-symptoms prevented (would it not be more correct to say arrested?) by cold affusion; 7 and 8, Delirium subdued by cold sponging. The beneficial effect of a judicious application of cold water in scarlatina and other febrile diseases has been confirmed in the subsequent practice of the author, as well as in the particular instances just now mentioned.

From this subject he turns to the use of warm water in the treatment of pulmonary and other internal diseases. His plan is, to wrap the patient (divested, of course, of all other covering) in a blanket wrung out of hot water; and to place him in bed between hot dry blankets, pretty much in the same manner as they use the wet cold sheet in hydro-pathic establishments in what is technically called the "pack". Sometimes it is useful, where it is wished to keep up a continuous action on the skin, to apply a casing of oiled silk over the blanket. As instances of the successful application of this mode of treatment, he relates cases of acute laryngitis, acute bronchitis, acute double pneumonia, and acute rheumatism with endocarditis.

With the application of water, in all cases, Dr. Marsh employs the ordinary appropriate internal remedies; his object being to stimulate the skin to perform its function, by means of the direct application to it of such agencies as are likely to call that function into activity.

The Hot Air Bath, and Inhalation, have been tested by Dr. Marsh in a similarly judicious manner to that in which he has employed the application of water in the treatment of disease. For his remarks on these important agents, we must refer the reader to his work.

In conclusion, we have to thank Dr. Marsh for calling the attention of the profession to those simple yet powerful remedial agencies of which he has treated. They have been for the most part the objects of extravagant laudation or of unjust neglect. It is, however, but fair to allude to the attempts that have been made by some of our hospital physicians—such as Dr. Risdon Bennett and Dr. Gooldeen—to demonstrate their proper therapeutical value. But the profession at large requires to be enlightened as to their safety and their efficacy, when em-

ployed under proper conditions; and great credit is due to Dr. Marsh for the attempt which he has made in this direction.

OUTLINES OF A NEW THEORY OF MUSCULAR ACTION; being a Thesis read for the Degree of Doctor in Medicine, before the University of Dublin, December 17th, 1862. By the Rev. SAMUEL HAUGHTON, M.D., F.R.S., Fellow of Trinity College, Dublin. Pp. 23. London: 1862.

THE title of this book scarcely leads one to expect what are its contents; although, in dedicating it to Dr. Stokes, the author describes it as "an attempt to determine some of the numerical laws of Muscular Action." It affords, however, evidence of the possession by its author of a kind of knowledge which does not ordinarily fall in any great quantity to the share of medical men, and which he is desirous of turning to account in the elucidation of physiological problems; as has already been shown by his researches on the urine, published in the *Dublin Journal of Medical Science*.

This book is divided into three parts. In the first, Dr. HAUGHTON treats of the Rate of Muscular Action; or, rather, of the susurrus or murmur first described by the late Dr. Wollaston as being audible during muscular contraction. He has endeavoured to ascertain the equivalent of this susurrus on the musical scale; and has found it to be two octaves below the bass notes C or D of the piano; corresponding, in the former case with 32, and the latter with 36, vibrations in a second.

In the second part, Dr. Haughton speaks of the Amount of Work stored up in Human Muscles. This he has attempted to determine by raising the arms horizontally, and noting how long they can be kept in this position without falling. The results at which he arrived can scarcely be stated in an abridged form, so as to be intelligible.

In the third part, he has endeavoured to calculate the Work done in a Day by the Human Heart. From calculations which he has made, he finds that the average muscular force of a man is capable of lifting 340 tons through one foot in the course of the day; while the force of the heart is calculated to be equal to a power which should lift 124 tons in a similar manner. Hence "the work of the heart is more than one-third of the daily labouring force of the whole body."

An interesting note is added to this part, describing the manner in which the author was enabled to supplement a deficiency in his knowledge of the hydrostatics of the human heart—his data on this point having been derived from the experiments of the Rev. Dr. Hales on lower animals. During the removal of a tumour from the groin of a patient in the Meath Hospital, the external epigastric artery was wounded, and, before it could be tied, strong jets of blood were thrown in various directions, varying in their range according to the angle of elevation of the orifice of the artery. Dr. Haughton immediately saw in this accident the solution of the problem which had puzzled him—that of the real hydraulic work of the human heart; and, by a series of measurements of the distances of the jets of blood from the orifice of the artery, and calculations founded thereon, he found the hydraulic work

of the heart to be apparently capable of raising 121.8 tons through a foot in the course of the day—a result which closely approaches the calculated muscular work of the organ, which, as has been already observed, he has estimated on other grounds at 124.6 tons.

Physiological science has to express its obligations to Dr. Haughton for his valuable contributions to its improvement; and we hope to meet with more of his researches on vital dynamics; a subject regarding which he shows a zeal and ability, that remind one of another clergyman whose name is inseparably connected with physiology—the Rev. Dr. Hales.

THE MEDICAL CHARITIES OF BIRMINGHAM; being Letters on Hospital Management and Administration. By SCRUTATOR. (Reprinted from the *Birmingham Daily Gazette*.) Birmingham and London: 1863.

THESE letters have occasioned considerable sensation in Birmingham, as might be expected, and are worthy of general consideration. Though not from the pen of one in the profession, they bear strongly the impress of an active, earnest, and intelligent mind. But in them we have looked in vain, we regret, for an expression of opinion on the *gratuitous public services of medical men*, while the author openly asserts,

"I do not hesitate to say, that one-third, at least, of the patients who receive hospital relief in this town have no right whatever to that which they receive. This want of discrimination not only tends to divert public charity from proper objects, but it is injurious to social interests, and is a great and scandalous wrong to the great body of medical practitioners. The authorities of a properly managed hospital have never to ask in vain for the gratuitous services of medical men; but they too often show their appreciation of those services, by allowing persons to receive the benefit of them, who are as competent to pay for medical advice as the hospital authorities themselves."

He dwells very strongly and properly on the importance and necessity of increasing the medical staff of hospitals to meet the requirements of an increased population.

"Eighty years ago," he says, "the general hospital of Birmingham admitted in twelve months 373 in-patients and 411 out-patients. The medical staff consisted of four physicians and four surgeons. Last year, 2,612 in-patients were admitted into the wards, and 25,902 out-patients received relief. Is it credible (he asks), or rather is it not humiliating, that during all those years, when patient has been added to patient, bed to bed, and ward to ward—when the population of the town has increased eight-fold—there has been no increase whatever in the medical staff?"

Again, he remarks, justly,

"Hospitals should secure the services of medical officers at a time when bodily energy and enthusiasm for work—when quickness of observation and hard study are combined, and are approaching their culminating points. When men retain hospital appointments for twenty or thirty years, is there no forgetfulness of their own dignity or of the rights and welfare of others?"

"It is a woeful sight," says an eminent writer, "when the young usurp the place or despise the wisdom of the aged; but there is a sight more despicable still, and that is, the old age which has learnt neither judgment

nor gentleness, which is weak without charity, and cold without discretion."

In Birmingham, the publication of these letters must produce good fruits, and lead to improved local government. The author asks for no indulgence from readers, no consideration from critics, friendly or unfriendly. He does not write without knowledge; and we recommend his timely *exposé* and critical strictures on hospital administration both to professional and public attention.

MENTONE IN ITS MEDICAL ASPECT; being Letters addressed to a Medical Friend. By JAMES LEWIS SIORDET, M.B.Lond., Member of the Royal College of Physicians of London; etc. Pp. 112. London: 1863.

THIS is an interesting and instructive account of Mentone and its hygienic merits, by a practitioner who has, we believe, like several others, made that place his residence in order to the recovery of impaired health.

In his first letter, Dr. SIORDET gives a general account of Mentone; in the second, he speaks of its Climatology; in the third, of its Prevailing Diseases; in the fourth and fifth, he gives his Practical Experience of the Climate; and in the sixth, he offers some Hints as to travelling, etc., which may prove useful to invalids about to winter in the place. Eighteen pages at the end of the book are occupied with tables of Meteorological Observations made by M. Jerome de Monleon, M. de Brea, and the author.

Dr. Siordet appears to have written impartially; and, while he has endeavoured to describe the good to be derived from a visit to Mentone, he has not concealed its drawbacks, nor neglected to show under what circumstances a sojourn in the place is not likely to be beneficial. We can, therefore, recommend his book as one among those on the climate of Mentone from which practitioners, having it in contemplation to send any of their patients thither, may expect to receive useful instruction.

THE CAUSES AND TREATMENT OF IMPERFECT DIGESTION. By ARTHUR LEARED, M.D., M.R.I.A., Physician to the Great Northern Hospital, etc. Third Edition. Pp. 222. London: 1863.

THIS edition of Dr. LEARED's well-known book has, we are informed in the preface, been carefully revised; and, while condensation has been kept in view, the chapter on Diet has received such practical additions as appeared desirable.

NATIONAL SOCIETY AND ASYLUM FOR THE PREVENTION OF INFANTICIDE. Under this title a society was inaugurated on the 3rd instant, at 16, Craven Street, Strand. The promoters urge that the crime of infanticide has prevailed so long without any attempt being made to check it by any adequate or organised means, that it is scarcely a matter for wonder that the offence so nationally degrading in its various phases, and so revolting to every natural and social feeling, should be on the increase, whilst so many elements exist in society which conduce, directly or indirectly, to the negation of healthy moral principles amongst all classes in a greater or less degree. (*Social Science Review*.)

British Medical Journal.

SATURDAY, SEPTEMBER 26TH, 1863.

VACCINATION IN 1862.

THE Medical Officer of the Privy Council has just issued a Report on Vaccination for 1862. The report is founded upon statements made by Drs. Seaton, Sanderson, Stevens, and Buchanan, who have visited different districts—in fact, more than half England and Wales. The picture they present of the system established by the legislature as the national protection against small-pox is very unsatisfactory.

Owing to the general failure of the registers, it is impossible to ascertain precisely what proportion of the population has been vaccinated; but the inquiries of the inspectors have led them to the conclusion that the intentions of the legislature are but very imperfectly fulfilled, and that the public defences against small-pox are in a great part insufficient and delusive. Among the elementary schools visited by the inspectors, there were many in which the proportion of unvaccinated scholars was from 20 to 30 per cent., and in not a few cases it was from 30 to 40 per cent.; in that of Penn, in Buckinghamshire, it was as high as 55½ per cent. In thirty-eight workhouses inspected by Dr. Seaton, there were eight in which the proportion of unvaccinated children ranged from 20 to 38 per cent.; and in seventy-four in Dr. Stevens's district, there were twenty in which it reached from 20 to 34 per cent. In at least a third of the unions inspected in Wales, and in many other districts, not one-half of the children are vaccinated within a year of their birth. An outbreak of small-pox induces a temporary compliance with the provisions of the Act; but when the alarm ceases, old habits of neglect immediately revive.

The responsibility for this dangerous state of affairs must be divided between parents and the authorities, and officers who have been charged by the legislature with the duty of carrying the law into effect. The fault of the people does not generally extend further than to indifference and neglect. As a rule, the vaccinators meet with no active opposition. In Abingdon, however, the inhabitants entertain the greatest antipathy to vaccination, and their aversion has increased of late years.

In many districts, parents believe that mischief will result to their children from the taking of lymph from their arms; and, to avoid this, they not only refuse to present them for inspection on the eighth day, but frequently hide them, to prevent the vaccinator from getting at them. This feeling is, fortunately, on the decline.

The chief blame for the defective state of vaccin-

ation rests with the authorities. The want of proper arrangements for the performance of vaccination is the great reason why so large a number of children remain unvaccinated. The law requires that boards of guardians shall contract for the regular performance of vaccination; but the inspectors complain, either that no contracts have been entered into with the vaccinators so as to bind them to the performance of their duties; or that, if such contracts exist, their terms are not adhered to.

Another respect in which guardians have very generally failed in the performance of their duty, is with regard to the giving notice of the means provided for obtaining vaccination. The people are not informed of the vaccinating stations, or of the days and hours at which the vaccinators attend, and do not resort to them at the proper times; consequently, after a few fruitless attendances, the operator naturally ceases to go any more.

Supervision over the vaccinators appears, in most instances, to have been reduced to a *minimum*. The duties of the contractors are, "to attend at the stations at the times specified by the contracts, there and then to vaccinate those who come, and to inspect the results on the eighth day; to register the vaccination and the result of the inspection, and to give a certificate, if successful, to the parent or person in charge of the child, and to send a duplicate to the registrar of the sub-district in which the operation was performed." In very few districts indeed are their duties strictly performed.

Vaccination at the stations, when carried out efficiently, reaches the largest number of children. The worst plan is that according to which the operation is performed at the surgery of the vaccinator, without the appointment of definite times for the attendance of patients; but the practice of vaccinating at the residence of each patient is also strongly condemned. Domiciliary visits are seldom carried on systematically; parents cannot understand why the doctor should be so anxious to vaccinate their children except on account of some advantage which he is to get out of it; and "in order that he shall have a bit of trouble for his money," they make him repeat his visit two or three times, till, at last, perhaps, he gets tired, and the operation is never performed. Preserved lymph is constantly employed; and this system is, besides, usually associated with general carelessness in the discharge of the contractor's obligations, as evidenced by long periods of neglect, the vaccination of persons far above the age that is most advantageous for the purpose, and the employment of unqualified assistants. The evils attending it may be, and often are, diminished by the holding of cottage meetings, in which a number of children are assembled at the residence of one of the patients, and vaccinated from arm to arm.

As to the quality of the vaccination obtained, we have no great reason to be satisfied with the state of things revealed by the inspectors. There is undoubtedly much good vaccination; but it is unfortunately true that too often vaccination is so carelessly or unskilfully performed as to be of little or no value. Dr. Seaton states that, of 15,950 vaccinated children whom he examined, not more than one-half could be considered really well protected. Dr. Stevens asserts that "they lay patent the fact that but a very small proportion of the supposed-to-be-vaccinated population has received such protection from death by small-pox as efficient vaccination is known to give." In Dr. Sanderson's district, among 14,385 children having marks of vaccination, the protection was good in only 40.070 per cent. In the fifteen unions inspected by Dr. Buchanan, out of 8,443 children vaccinated, 4,461, or 52.8 per cent., were well protected against small-pox; 2,424, or 28.7 per cent., were moderately protected; and 1,558, or 18.5 per cent., were badly protected. It results that only about one-half of those who are nominally vaccinated are well secured against the ravages of small-pox. The principal cause of this imperfection of the quality as of the deficiency in the quantity of vaccination is the want of a proper system, and of constant and adequate supervision to see that that system is strictly adhered to. The abandonment of stations and the adoption of house-to-house vaccination have exercised an injurious influence upon the character as well as upon the number of the operations performed. Operators who visit the patients at their homes must use stored lymph, which produces by no means so good an effect as that which is taken directly from the arm. The efficacy of the lymph naturally diminishes with the period during which it is preserved.

The imperfect manner in which the registers of vaccination are generally kept renders it difficult to ascertain with precision the relative degrees of success of different vaccinators, or to arrive at any definite conclusion as to the best mode of operating.

Legal proceedings for the enforcement of vaccination have not to any large extent been resorted to. The inspectors do not consider such proceedings, as a rule, desirable; but they all bear testimony to the necessity for a power of compulsion. In some districts, it has been found necessary to prosecute in a couple of cases or so, "simply that the people might understand that the law was not to be trifled with"; but so moderate an enforcement of the law as this will usually be found sufficient to prevent any further resistance to its provisions.

The general results of the reports upon vaccination for last year show that we are still far from attaining the first object of the legislature, "that every infant (its health permitting) shall be vaccinated within the first few months of its life"; and

they appear to justify Mr. Simon in the conclusion "that the laws now in force for the purpose of extirpating small-pox are not likely to accomplish their object, and that the system established by law for public vaccination works in an unsatisfactory manner."

THE HORSE GUARDS AND BRANDING.

THE Horse Guards have determined that medical officers of the army shall superintend the work of the hangman as well as perform their own special duties; that they shall be ministers of torture and punishment as well as ministers of mercy. By a memorandum of August 1862, it is ruled that the branding of soldiers sentenced to be discharged from the service with ignominy, and to be marked with the letters B. C., shall be done by the hospital sergeant at the regimental hospital, under the direction of a medical officer.

For the proper way—the "present mode"—of doing this business, "you are referred to the regulations relating to the letter D."

Under these regulations, it is directed, that the infirm warder of a military prison shall mark the D, under the superintendence and instruction of a medical officer.

The result of this is, first, that the medical officer has to suffer the degradation of applying for the implements of torture; and secondly, that the punishment is inflicted in a way that can scarcely fail to leave an impression on the mind of the soldier that the hospital is not only a refuge in suffering, but also a place for the infliction of punishment, and the medical officer, with the hospital subordinates, agents of its infliction.

The medical officer is, in truth, incapacitated for the business of punishing; sentence can only be properly inflicted by persons armed with municipal or military authority, and the medical officer is armed with neither. But the proper duties of the medical officer render him especially unfitted for this disgusting business. Professional men are, in no way whatever, qualified to "direct"—much less instruct and superintend—a non-commissioned officer in the process of branding. It is manifestly inconsistent with the exercise of his professional functions, as well as derogatory to the position of a member of the medical profession, that he should have to direct an attendant on the sick in the infliction of punishment at the place designed for the treatment of the sick.

In the infliction of corporal punishment, the prisoner is on a parade commanded by a combatant officer, and a medical man is present to see that no unnecessary injury accrues to the individual; but in this case of branding, he has, as a member of the medical department, to furnish the punishing imple-

ment, and also to superintend the branding; and, moreover, is called upon to furnish a certificate that the "branding" is indelible.

What would be thought if, in the matter of flogging, the surgeon were ordered to furnish the "cat" and to direct a hospital sergeant in its application within the walls of a hospital?

There can be no objection, of course, to the authorities inflicting this punishment, if they choose—that is matter with which medical men, as such, have nothing to do—provided it be done upon a parade, commanded by a combatant officer, in the presence of a surgeon.

No better proof could be given of the kind of estimation in which the Horse Guards hold their medical officers than this order, issued in 1862. It is outrageous that the performance of such a disgusting business—such hangman's work—should be delegated to the educated members of our profession, whose right business is, above all and especially, a work of mercy and healing, and not of injuring and punishing. What is the use of our having army medical directors if they are patient under such orders as these, and enter no protest with the authorities against the infliction of such work as this upon their medical subordinates in the army? If the head medical manager in the Army Department is unable to get such an order rescinded, let us at all events have the satisfaction of knowing that he entered his protest against it, and that it was issued contrary to his wishes and opinions; and that he has done his duty to the profession.

SOCIAL SCIENCE ASSOCIATION.

THE arrangements for the seventh annual meeting of the National Association for the Promotion of Social Science, commencing at Edinburgh on the 7th of October, are rapidly approaching completion. The President of the Public Health Department is Professor Christison; Vice-Presidents, Dr. Craigie, President of the College of Physicians; Dr. Newbigging, President of the College of Surgeons; and Mr. Lindsay, Provost of Leith. The Secretaries of the Department are Dr. Markham and Mr. R. Rawlinson, C.E.; in conjunction with Dr. Littlejohn, Dr. Scoresby-Jackson, and Dr. Stevenson Macadam, who act as local secretaries. Among the papers sent in to be read in this department, the following are of special interest:—The Sanitary Statistics of Colonial Native Schools and Hospitals, and another paper on the Army in India, by Miss Florence Nightingale; The Changes which have occurred in the Type of Disease in Edinburgh during the last Fifty Years, by Professor Christison; Diseases in Cattle, by Professor Gamgee; The Sanitary Arrangements of Edinburgh as compared with other Large Towns, by Dr. Littlejohn; On the Necessity for Prospective Legis-

lation to prevent Dwelling Houses being Built in Disregard of the Conditions of Health, by Colonel Oldfield. Various other important subjects will be brought forward; as the Sickness and Mortality of Merchant-Seamen; the Contamination of Water by Sewage and by Public Works; etc.

The meeting will be opened by Lord Brougham (the President), who will deliver an address in the Free Church Assembly Hall, on Wednesday evening, Oct. 7th. The business of each of the six following days will be opened by addresses from the presidents of the departments in rotation, delivered in the Free Church Assembly Hall; and, after the addresses, the departmental meetings will be held in the Law Courts and Free Assembly Hall. The concluding general meeting will take place in the Church of Scotland Assembly Hall, on Wednesday the 14th October. The Council will meet in the library of the Writers of the Signet, and the Parliament House will be open as a reception room; the College and Law Libraries, and other public buildings and places of exhibition, will be open to members during the week. Conversaciones will be held in the University, in the Museum and Hall of the Royal College of Surgeons, and in the National Gallery, on the evenings of the 8th, 9th, and 12th. A working men's meeting will be held in the Corn Exchange on the evening of the 9th, at which Lord Brougham will preside; and on the 13th the Association dinner will take place in the Music Hall. The Royal Scottish Academy intend to hold an exhibition of the works of deceased and living artists of Scotland, collected for the occasion, during the meeting of the Association. There is to be a great *réunion* of the Bars of the three kingdoms, which will be represented by many distinguished members of the English and Irish Bars. The Scotch railways generally have agreed to give return tickets to members and Associates; and the leading English lines will afford facilities to visitors through their tourists' tickets. A Reception Committee, of which Lord Ardmillan is convener, and Mr. C. Lawson, jun., sub-convener, has been engaged for some time in arranging for the hospitable reception of the large and distinguished circle of visitors who will be present. It is expected that Prince Alfred and one of the Danish Princes will be present at one of the concluding meetings of the Association.

IRIDECTOMY.

THERE is doubtless, to a certain extent, a fashion in surgical operations, just as there is a fashion in drugs; and we have no doubt that the fashion rules in ophthalmic as in all other branches of surgery. Our opinion is asked of iridectomy. We can only speak of it from what is reported of it; but certainly, unless report be a very false guide, iridectomy

must be considered as of the fashionable sort of operations.

In proof of this, if we are rightly informed, for example, it is an operation which is much more rarely performed now than it was when first introduced amongst us. Some first-rate ophthalmic surgeons have, we believe, never performed it at all; and others, again, who have done so, now no longer resort to it or admit it into their practice. Again, we have heard one celebrated eye-surgeon say, that he believed that twenty years hence the operation will be a mere matter of history. Of course it is, on the other side, difficult not to accept as a fact, that great benefits sometimes result from the operation; otherwise it would not be so highly praised by great authorities.

In this dissonance of opinion, as impartial observers, we can only say, that we think the real value and purposes of the operation have yet to be clearly laid down and more definitely described. There is, apparently, some mystery still enveloping the *rationale* of iridectomy. Every one knows and understands why an opaque lens is extracted or broken-up; but the benefits of iridectomy are not so patent and comprehensible to the general observer.

We must suppose, that a difficulty sometimes occurs in surgery as well as in medicine respecting the relation of the antecedent to the sequence. It may be, in this matter of iridectomy, that the operation (though the antecedent) is not always the cause of the beneficial results which follow its performance. However, we can only suggest, that materials must surely be now sufficiently abundant to afford surgeons an opportunity of coming to something like a consistent opinion on this important point. We regard the operation as we should a drug; and if we find that one set of qualified observers see no virtue in it, and that another set of equally qualified see it full of excellence, we reasonably conclude that the actual and real value of the article has yet to be determined.

THE ANCIENT AND MODERN DOCTOR.

A CRITIC in *Gazette des Hôpitaux*, speaking of the recent work of M. Raynaud, *Physicians in the Time of Molière*, contrasts the difference between the studies required of the student of medicine of those and of the present days.

"What an abyss separates these studies! Compare the student, already master of arts or philosophy—the possessor, consequently, of profound and extensive knowledge—kept constantly at work, obtaining his grades only after long and difficult trial, . . . with the student of to-day, and then ask in whose favour is the comparison? The baccalaureat of this day, as we well know, is not a serious examination. The preparation for it is very like that of certain plants in a hothouse, and the product too often the same. And then, what are the stupid examinations, half an hour long, of our Faculty,

by the side of those athletic combats and trials which were prolonged during the greater part of the day, and in which the candidate was tested at every intellectual point? Now-a-days, each professor examines for ten minutes, unless, like good old Desgenettes, he prefer talking himself all the time. In these ten minutes he satisfies himself that the student is perfect in his medicine, anatomy, pathology, etc. In those other days, four years were required of the student to be passed in the study of a very limited programme of subjects; but now, notwithstanding the formidable increase of subjects of study, the number of years is the same. And new chairs are being created! Medical studies are, in truth, very weak, and the greatest number of those who are received as doctors ill educated."

The remedy recommended by the critic for this deplorable state of things is this:

"You have," he says, "already too many doctors by half in France—in fact, one doctor to every 1500 persons. It would be to the interest of every one if the number were diminished. And how could this be better done than by increasing the length of the student's years of study and the severity of his examination? In the seventeenth century, the candidate for the baccalaureat in medicine was obliged to be twenty-five years of age, and consequently could not receive his license to practise before he was about twenty-eight years old. Now a man may, in fact, be a doctor at twenty. As a rule, he is so at twenty-three and twenty-four. Why not fix the date at twenty-six or twenty-seven?"

THE WEEK.

MUCH misconception, we believe, exists in reference to the sum of money which has been left by the late Lord Henry Seymour to the *Hospices de Londres*. The real sum is, we understand, £25,000. The course which the different medical charities—claimants for a share of the legacy—should pursue, in the interests of all of them, is evident enough. Each category of such charities, whether hospital, almshouse, lunatic asylum, dispensary, etc., should have its particular claim argued separately. Thus the hospitals proper should all have one spokesman; so also the dispensaries, and so on. By pursuing this simple course, large expenses, which must otherwise be incurred, will be saved to these charities. We happen to know that this is the opinion of excellent legal authority. It may be added, that the will of the late lord was made by himself, and, though written in French, was not drawn up by a French lawyer; consequently, there will be less difficulty in arriving at the conclusion that, when his lordship wrote the word *hospice*, he meant thereby to infer the medical hospitals of London. Had a French lawyer dictated such a term, a very different value might be attached to the word.

PROFESSOR LUCCA of Naples has laid before the Academy of Sciences a piece of bread from Pompeii, eighteen hundred years old. It had the appearance of charcoal; and contained 2 per cent. of nitrogen and about 23 per cent. of water. Incineration produced 17 per cent. of its weight of ash.

M. Dumas has much occupied himself with the "bouquet" of wines. He agrees with M. Berthelot that the "bouquet" depends upon the ethers. He would not, however, enter into details, because there were too many *falsificateurs* on the look out who would make use of the information for their own benefit and to the detriment of MM. *les gourmets*.

FRENCH ACADEMY OF SCIENCES.

THALLIUM AND ITS POISONING PROPERTIES.

M. Lamy, in a paper addressed to the Academy of Sciences, announces a property of that metal, the discovery of which belongs to him, viz., its deleterious power. Having experienced certain pains, especially in his lower limbs, while pursuing his studies on thallium, he was induced to attribute them to a noxious influence of the metal; and in order to ascertain whether such was the fact, he dissolved five grammes of sulphate of thallium in milk and offered it to two puppies, each about two months old. But after tasting the liquid they left it, and could not be induced to take any more. On the following day the milk, which had been left in the yard, had disappeared, and it soon turned out that it had been partaken of by a dog, two hens, and six ducks; for a few hours after ingestion the dog became sad and refused to eat. During the night it was seized with violent gripes, which caused it to utter piercing cries. Its features had undergone a change; its back was bent up through the effect of pain, the seat of which was evidently in the intestines. Its hind legs, after a continuance of convulsive motions, became paralysed, and it died sixty-four hours after taking the poison. On the day before its death a hen and six ducks died, and in those which were watched in time, the paralysis of the legs was remarked. The two puppies which had scarcely touched the milk had meanwhile shown symptoms of fatigue; by degrees they were seized with convulsive trembling, and could hardly stand; then came the acute pains which ended in death, although every precaution had been taken, apparently in good time, to save their lives. All these animals being subjected to dissection, there could not be found the slightest corrosion or even inflammation of any consequence; only the gall-bladder of the dog was found considerably extended, and in some of the ducks various serous membranes, that of the liver especially, had assumed a whitish and granulous appearance. As to the nature of the poison, if there could have been any doubt about it, it would have been at once dispelled by the characteristic green band peculiar to thallium in the spectral analysis of the organs of the dead animals. Eight days later another hen was taken ill. Its wings hung down, it could hardly walk, and when it wanted to peck its food, its neck seemed to have lost the power of bending down sufficiently, so that its beak did not reach the food. The hen was killed, and thallium found in the intestines, but in a very small dose indeed, and the other organs did not contain any. M. Lamy next administered a *decigramme* (a grain and a half) of the sulphate to a dog two months old, and it died forty hours after taking it. Hence M. Lamy infers that sulphate of thallium is a powerful poison, producing pain in the intestines and paralysis of the lower members. This poison and the nitrate have but little taste, and might therefore be used for criminal purposes; but fortunately there is not a poison that can be traced with more certainty through spectral analysis than this. This new method of analysis bids fair to render excellent service in cases relating to forensic medicine.

FOSSIL REMAINS.

At a late meeting, a paper was received from M. Husson on the drift of the environs of Toul, where there are certain grottoes, called Troncs de Saint Reine, opposite Pierre-la-Treiche. They form the termination of the inferior oolitic formation, and are immediately covered with a stratum of fullers' earth, above which begins the great oolitic, and then the siliceous lime deposit, with fragments of flint. The fossil bones contained in the drift consist of jaw-bones, femora, ribs, and vertebrae of the bear, teeth and other bones of the hyena, stag, and boar, and various coproliths. In the modern deposit a curious lump was found, containing a fine fossil jaw-bone and two vertebrae of a bear enclosed in a thick stalagmite, with a bone of recent origin. To explain this anomaly, M. Husson supposes that a hole had first been formed by some animal in the immediate vicinity of the jaw-bone, and that after the casual introduction of the new bone a new stalagmite was formed over it.

SUGAR FROM SERPENTS' SKINS.

In 1861, M. de Luca made some experiments, from which it appeared that the skins cast off by silkworms might be transformed into sugar. The same chemist lately sent in a paper to the Academy of Sciences, in which he describes a similar process for changing serpents' skins into sugar. These skins contain a small quantity of a substance resembling the cellulose of plants, soluble in ammoniuret of copper, and transformable into glucose, which reduces the tartrate of copper and potash, and ferments under the influence of yeast, yielding thereby carbonic acid and alcohol. Concentrated sulphuric acid and a solution of potash are the best reagents for depriving serpents' skins of their nitrogenous matter; the residue, although very refractory to chemical agents, may nevertheless be transformed into fermentable glucose, recognisable from its property of reducing the tartrate of copper and potash. Thus, M. de Luca boiled fifty grammes of serpents' skin in a litre of water containing forty grammes of caustic potash, the skins having been previously treated with concentrated sulphuric acid. The liquid having been allowed to cool, a great deal of water was added, and the undissolved residue was several times washed by decantation, and then treated with ammoniuret of copper, whereby an alkaline solution was obtained, which, on being neutralised by hydrochloric acid, yielded a white precipitate; this, heated in slightly acidulated water, reduced the tartrate of copper and potash, thereby showing that it was glucose, or the base of sugar. In another somewhat similar operation glucose was obtained which fermented in contact with yeast, producing carbonic acid and alcohol. The former was completely absorbed by caustic potash; the alcohol extracted from the solution by distillation, and insulated by means of crystallised carbonate of potash, was nearly pure, since it would burn without leaving any residue; rubbed between the hands it evaporated, emitting an agreeable smell, though still partaking of that of animal matter. From all this it may be concluded that serpents' skins contain a very small quantity of sugary matter or glucose. (*Galignani.*)

THE EFFECTS OF CONGELATION UPON WATER.

Dr. Robinet has given an account of experiments made to test the effects of congelation upon drinking-water. It is well known that the ice which is formed in the sea yields nothing but fresh water, all the salt having been eliminated by congelation. In the northern parts of Europe this property is turned to account for the extraction of salt from sea water; for a large sheet of the latter having been left to freeze, the ice is afterwards cut away, and the unfrozen water left below it so rich in salt as to require very little evaporation to yield it in a solid state. This property will also serve to analyse wine. Suppose it was required to determine the quantity of water

fraudulently added to a certain wine; by exposing it to the action of artificial refrigeration, all the water would be alone, and the wine left in its purity. By a similar process, ships at sea, being short of water, might be supplied with this necessary article. Dr. Robinet has added a new fact to this theory by showing that the water of springs and rivers loses all its salts by congelation. These salts are chiefly those of lime and magnesia.

DIFFUSION OF GASES THROUGH CERTAIN POROUS BODIES.

On repeating Deville's experiments, M. Matteucci could not obtain the same results with a long piece of intestine; but when he employed a well dried tube of plaster of Paris, his results agreed very well with Deville's. He has shown that diffusion takes place much more slowly through moist fresh membranes and wet tubes. Pea and bean-pods, which he found to contain from six to ten per cent. of carbonic acid, sometimes required entire days for the carbonic acid to pass out and be replaced by pure atmospheric air. The following remarks on diffusion through moist membrane have particular interest. When capillary columns of water intervene, the nature of the phenomena changes, and acquires a great analogy to endosmose. It is then necessary to consider the two gases as separated by a more or less continuous stratum of water, with which these two gases enter into solution, but with very unequal affinities. Once dissolved in water, they each pass out into a different medium, as if it were a vacuum. In this way we see differences appear which must depend upon the unequal solubility of the two gases. Thus, a large vessel containing hydrogen, but not full, suspended under a bell glass filled with carbonic acid quickly begins to swell from the large quantity of carbonic acid which passes in, and the small amount of hydrogen escaping. Analogous phenomena must happen in the act of pulmonary respiration.

JAPANESE SILKWORMS.

At a late sitting, M. Ruz de Lavison, director of the Jardin d'Acclimation, read a paper on the *Yama-Mi*, the Japanese silkworm that feeds on the leaves of the oak. M. Eugène Simon had sent over five grammes weight of eggs of this species. These eggs were hatched between April 16th and May 22nd last; the insects were fed with the leaves of the common oak (*Quercus pedunculata*) that grows in the Bois de Boulogne; the cocoons were spun between the 1st and 25th of June. The number of insects was 83; the cocoons obtained 77. Twelve of the latter subjected to the process of winding produced two grammes of raw silk, inferior in gloss to that of the mulberry insect, but much stronger and somewhat thicker. The winding is effected with as much ease as in the case of the common silkworm; the yield also is much the same, fourteen kilogrammes of cocoons producing one of silk. The rearing of these silkworms takes about sixty days; they are about a week spinning their cocoon, and the butterfly emerges about thirty-five days after; the laying of eggs takes place four days later. Marshall Vaillant, who had some of the worms under his care, has communicated several important observations to the Société d'Acclimation on the subject.

THE ANTIQUITY OF MAN.

A letter was lately read from M. Eugène Robert, on certain deposits of bones and stone implements, said to exist in the environs of Nancy. He states that having, in 1830, found the remains of a young *elephas primigenius* on the heights of Toul, opposite Nancy, he visited the spot again a few weeks ago, but found nothing, limestone quarries having in the interval been opened on the spot; but thereby numerous crevices, filled with a reddish earth and pebbles, had been brought to light, showing that the matter constituting the drift of the heights of Toul had been transported thither by rains and other meteorological agents. In one of these

crevices, at Maxeville, human bones had been found, together with the fossil remains of the aurochs and gigantic stag, and hatchets rudely fashioned out of the trap or green stone of Vosges. Nevertheless, after a careful search, in the presence of the gentlemen who had actually formed a collection from the remains above alluded to, M. Eugène Robert could not find the slightest trace of such fossils. He accordingly expresses some doubts as to the authenticity of the stone hatchets, and the high antiquity of the bones. Another letter was read, from the Abbé Chevalier, on the superficial strata of Touraine, in which the writer states that M. Elie de Beaumont's "moveable deposits on declivities" are very frequently met with in Touraine, and that flint hatchets have nowhere been found in the real drift, though many have been discovered in those moveable deposits. He adds that he has discovered five "workshops" of flint hatchets (meaning places where primeval men used to manufacture them) on the banks of the Creuse and the Claise—viz., at La Petite Querche, Chambon, Barzou, Pressigny-le-Grand, and Paulmy, where flint implements may be found in every stage of manufacture. Many specimens of these the Abbé has sent to the Museum of the Archaeological Society of Touraine. Among the implements found there is one which was used for polishing hatchets; it is a hard flint, with deep furrows on its surface, and on rubbing a flint hatchet up and down one of these grooves, it takes a fine polish.

CUTANEOUS ABSORPTION.

M. Parisot has presented memoirs of some physiological and therapeutical interest. By a series of experiments with the corpses of infants, he has proved that water is only absorbed into the body at the palms of the hands and the soles of the feet. When these were covered with Venice turpentine, a corpse immersed in water acquired no additional weight. The reason is obvious: these parts are unprovided with sebaceous follicles, the secretion of which forms a protecting varnish for the rest of the body. Alcohol, ether, and chloroform, which more or less dissolve the sebaceous matter, penetrate the skin easily. A solution of atropine in chloroform applied to the forehead produced dilatation of the pupil in three minutes. A solution of the same strength in alcohol only produced dilatation in thirty minutes. A solution in water slightly acidulated with acetic acid did not dilate the pupil at all. These facts, the author says, are likely to alter our ideas upon absorption, and the substances to be employed for external applications.

THE MOULIN-QUIGNON JAWBONE.

M. de Beaumont has communicated to the Academy of Sciences a few observations in reply to a letter from M. Boucher de Perthes, in which he quotes, it would seem, an opinion expressed by M. de Beaumont about twenty years ago, touching the nature of the ground of Moulin-Quignon, where the famous jawbone was found last spring. M. de Beaumont declares that he still holds that same opinion—viz., that certain gravel deposits, like that of Moulin-Quignon, must be distinguished from the Alpine drift or *diluvium* properly so called, and the origin of which is owing to causes which have ceased to operate, whereas the deposit of Moulin-Quignon is owing to actual causes—that is, to those which we still see in operation. That deposit has been attributed either to the action of the Polar ice which may have floated on the bay of Somme, or to various successive changes of level in the general mass of the adjacent land. Whether it be justifiable or not, M. Elie de Beaumont remarks, to ascribe so small an effect to such gigantic causes, the latter would, after all, still lie within the range of actual causes. And if the gravel-bank of Moulin-Quignon is the result of a later mixture of grey and red drift—it certainly does not belong to the grey, which is the real Alpine drift, considered by our author, as well as by

Cuvier, as representing the end of the period of fossil elephants, and as anterior to the appearance of man. In support of his opinion that the gravel deposit in question is owing to the most common among the actual causes—viz., storms, frost, snow, etc.—M. Elie de Beaumont observes that the gravel-bank of Moulin-Quignon is situated at an altitude of 30 *mètres* above the Somme at Abbeville, and consequently at 39 *mètres* above the level of the sea. It is overlooked at a distance of less than two *kilomètres* by points the altitudes of which are respectively 61, 65, and 67 *mètres*; at less than three *kilomètres* by another point 80 *mètres* above the level of the sea; and at less than five *kilomètres* by points marking 100 *mètres*. The gradients of the lines going from Moulin-Quignon to those points all exceed the proportion of one in 100, or more than tenfold the *maximum* inclination of the beds of navigable rivers, and greater than those of the Arve, Isère, etc., near their sources, where their waters, even when but slightly swollen, flow with immense rapidity, and will sometimes commit the greatest ravages. Now, to produce similar ravages on the undulated plains of Picardy, a single heavy snow storm would be quite sufficient; and who would venture to guess the *maximum* effect of this kind which may have taken place in the environs of Abbeville since the age of stone? The deposit of Moulin-Quignon may, therefore, be very well owing to such a cause, though anterior to the turf deposits of the north of France, many of which are posterior to the Roman roads. Such deposits, which M. de Beaumont calls moveable deposits on declivities, are peculiarly abundant in the north of France, owing to the want of coherence of the eocene, miocene, and pliocene deposits which cover the chalk formation, and are essentially contemporaneous with the alluvial beds of valleys—those along the coasts and turf deposits.

ALCOHOLIC METAMORPHOSIS.

In opposition to M. Pasteur, M. Millon shows that when sugar is fermented in contact with tartrate of ammonia, the ammonia is carried away by the carbonic acid evolved, and not assimilated by the ferment. In the course of his experiments, M. Millon has made a discovery of great importance; namely, that under some circumstances the contact of yeast will produce alcohol from sugar, without the formation of carbonic acid. What these circumstances are the author keeps to himself for the present. He states, however, that the production of alcohol under such conditions is attended by the formation of a compound of carbonic acid and sugar, analogous to the compounds sulphuric, tartaric, and citric acids form with glucose. (*Chemical News.*)

THE RIPENING OF WINES.

M. Berthelot, in a *Note on the Proportion of Ethers in Wines*, shows, that in a wine of fermented liquor in which all the sugar has been changed and no mycoderms are left, a reciprocal action of the acids and alcohols contained goes on until a certain equilibrium is reached, the amount of ether produced being in proportion to the weight of acid in the wine or liquor, the coefficient of the proportionality depending on the relation existing between the alcohol and the water. The results of the author's experiments have an evident bearing on the ripening of wines, and the time in which it is accomplished. In experimenting with a mixture of alcohol and acetic acid in equal equivalents, M. Berthelot found that two-thirds of the possible quantity of ether was formed in five or six months, and five-sixths at the end of a year. Two years were not enough to complete the reaction, but as much as fifteenth-sixteenths of the quantity of ether possible was found. With polybasic acids, such as exist in wine, the reaction is a little more rapid; and the author adds that warmth promotes, and cold retards, etherification. According to M. Berthelot's

notion, the acidity of wine goes on diminishing, so that an ordinary wine, according to its richness in alcohols, loses from one-eighth to one-sixth of its acid by the formation of ether alone. (*Chemical News.*)

Association Intelligence.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Tuesday, the 29th of September, 1863, at half past One o'clock P.M.

Business:—To appoint the readers of the Addresses in Medicine and Surgery at the next annual meeting.

To consider and decide upon the best means of collecting the annual subscriptions.

Any other business which may be brought forward.

T. WATKIN WILLIAMS, *Gen. Sec.*

13, Newhall Street, Birmingham, Sept. 17th, 1863.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
MIDLAND. [Quarterly.]	Board Room of the Infirmary, Derby.	Thursday, Oct. 15, 2 P.M.
SOUTH MIDLAND. [Autumnal.]	Infirmary, Northampton.	Thurs., Oct. 22, 1 P.M.

Reports of Societies.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

ANNUAL MEETING.

[Held at Newcastle-on-Tyne, August 1863.]

Life in the Atmosphere. By JAMES SAMUELSON, Esq. No subject in natural history, Mr. Samuelson remarked, except the allied one, the origin of species, had of late excited greater interest in the scientific world than the origin of the lowest types of living beings on the globe; and although the problem was far from being solved, yet the investigations which had accompanied the discussion had already served the useful purpose of throwing new light on the anatomy and life history of the mysterious little forms of which it treated. He had taken rags imported from various countries, and shaken the dust from them into distilled water, which he then exposed to the atmosphere; and, after describing generally the character of the living forms he had discovered in this pure water, he stated in detail the forms of life found in each kind of dust; among these were some new species of *rhizopoda* and *infusoria*, and an interesting ciliated worm-shaped form, which he believed to be a collection of the larvæ of some other infusoria. The general results of the microscopical examinations of these fluids, between July the 27th and August 15th, was as follows:—In dust from Egypt, Japan, Melbourne, and Trieste, life was the most abundant, and the development of the different forms was rapid. In conclusion, he observed, that if he was correct in supposing the germs of the living forms that he had described to be present in the dust conveyed by the atmosphere, and in distilled water, it was worthy of notice that these germs retain vitality for a long period, of which he could not pretend to define the limit. In his experiments they outlived the heat of a tropical sun, and the dryness of a warm room during the whole winter; but in Dr.

Pouchet's case they retained their life two thousand years, for he obtained his from the interior of the pyramids of Egypt, and they survived in an oil-bath of four hundred degrees of heat. A main purpose which Mr. Samuelson had in view was to discuss the theory of spontaneous generation; and he suggested whether the great rapidity with which these germs are multiplied might not account for the spread of epidemic diseases. He did not profess to have any acquaintance with such diseases; but might it not be desirable to subject the atmosphere of hospitals to the microscopic test?

Effect of Digestion on the Stomach. By F. W. PARRY, M.D. The author, after relating many experiments, said that the problem as to why the stomach is not susceptible of attack during life as it is after death, still remains open for solution; and the view that he had to offer referred the immunity observed to the circulation, within the walls of the organ, of an alkaline current of blood. It would not be disputed that the presence of acidity was one of the necessary circumstances for the accomplishment of gastric digestion. Now, alkalinity was a constant character of the blood, and, as during life the walls of the stomach were everywhere permeated by a current of this alkaline blood, there was here an opposing influence, the effect of which would be to destroy, by neutralising its acidity, the solvent properties of the digestive fluid, and to prevent it from acting on and penetrating the texture of the organ. The blood being stagnant after death, the opposing influence offered by the circulating current was lost. Should life happen to be cut short at a period of digestion, there was only the neutralising power of the blood actually contained in the vessels of the stomach, to impede the progress of attack upon the organ itself; and the consequence was, that digestion of its parietes proceeded, as long as the temperature remained favourable for the process, and the solvent power of the digestive liquid was unexhausted. The author found, experimentally, that by arresting the flow of blood through the stomach during life, the organ was placed in the same condition as after death; its protecting influence being lost, digestion of its texture now proceeded.

Cranial Deformities: the Scaphocephalic Skull. By W. TURNER, M.B. The author commenced by stating that deformities of the skull might be occasioned by artificial means, by posthumous changes, by pathological changes, and by developmental irregularities and deficiencies. He in a great measure restricted himself to the consideration of the influence, which premature or retarded synostosis may exercise in the production of abnormal cranial forms. He arranged the sections of the skull-cap into a vertical-transverse group, a median-longitudinal and two lateral-longitudinal; and, carrying out the important proposition first clearly enunciated by Professor Virchow, he pointed out that if a premature ossification takes place in one or more than one of the whole or a part of the sutures, then, necessarily, the growth of the skull corresponding to and in a direction perpendicular to the line of synostosis will occur, and diminished length or breadth, or height, as the case may be, will be occasioned. He illustrated this proposition by describing the peculiarly elongated and laterally compressed form of skull to which Professor Von Baer, of St. Petersburg, has given the name of Scaphocephalus. The whole of these crania agreed in possessing the following characters: Absence of the sagittal suture and consequent blending of the two parietal bones; absence of parietal eminences; lateral compression; great elongation. He then described at length the theories which had been advanced in explanation of these characters. The first, proposed by Minchin, and adopted by Von Baer, supposes that the biparietal bone is developed from a single median-vertical centre. The second, proposed by Virchow, and concurred in by the author, supposes that the two bones were formed in the

usual way, each from its own centre, but that at a very early period they coalesced along the sagittal line so as to form but a single bone. The author then directed attention to the importance of attending to the above proposition in ethnological inquiry, and suggested that various aberrant forms of skull, occurring in individuals of any given nationality, possessing a shape quite different from that of the race to which they belong, might be thus explained. He pointed out, moreover, that obliteration of the sutures was not unfrequently met with in the skulls of the Flathead Indians which had been artificially flattened. He was of opinion that premature synostosis did not necessarily occasion any disorder of the faculties of the mind, or any tendency to cerebral disease. Persons possessing crania of this form did not belong to any particular race, neither did they exhibit any special tendency to cerebral disease or mental incapacity.

Report on the Bromide of Ammonium. By GEORGE D. GIBB, M.D. The author offered the following conclusions as the results of his experiments as to the medicinal value of the bromide of ammonium. 1. In small doses, more or less continued, bromide of ammonium acts as a tonic and absorbent, and exerts its peculiar properties upon the skin and the mucous membrane. 2. It diminishes the weight of the body, causing the absorption of fat, when continued with a regulated diet. 3. It improves the intellectual powers, increases the bodily capacity, and promotes healthy function. 4. Locally, it possesses a soothing influence on the mucous membrane; and, according to the strength and mode of its application, so does it diminish the sensibility. 5. In large, frequently repeated doses, or given at intervals, it influences the entire mucous tract, affects all the special senses, and produces impaired sensibility of the various mucous outlets. 6. All the poisonous effects are produced by very large doses, as from the bromide of potassium; but in smaller doses it is more certain and reliable, causes no diarrhoea nor diuresis; while its special properties are exerted sooner and with less inconvenience.

The Nitrite of Amyle. By B. W. RICHARDSON, M.D. After describing the character of this clear amber-coloured fluid, Dr. Richardson said that the nitrite, when inhaled, produced an immediate action on the heart, increasing the action of the organ more powerfully than any other known agent. As the action of the heart rose, the surface of the skin became red, and the face assumed a bright crimson colour. (A little of the nitrite was here placed on a piece of bibulous paper, and passed round to show the effect on the face, and the effect was most remarkable, causing the faces of the persons who smelt the vapour to become instantaneously flushed.) Carried to an excessive degree, the nitrite excited the breathing, and produced a breathlessness like that caused by sharp running or rowing. In animals, when the agent was given in large quantities, death was produced. The author at first thought that the nitrite, like chloroform, would cause anaesthesia; but experiments had shown that this view was not borne out. Animals would, it is true, lose consciousness; but when such a stage was reached, great danger resulted, owing to the slowness by which the poison was removed from the body after its absorption. On the blood the nitrite produced darkness of colour, but did not materially interfere with coagulation in the body. In the lungs it excited congestion, and in the brain slight congestion. It caused no severe spasm, and no sickness. In the lower animals—frogs for instance—the nitrite of amyle led to suspended animation, which could be maintained for so long as nine days with perfect after-recovery. This fact was of curious historical interest. The ancients, especially Paracelsus, had stated that there was a poison which, when taken one day, would not take effect until some future day. This statement, long con-

sidered as a myth, had within the present year been shown to be true by Dr. Letheby, who had discovered a poison which really produced this phenomenon. In like manner the ancients had an idea that there were medicines which would for a time suspend life. The proceeding of Friar Lawrence in giving the distilled liquid to Juliet, was based on this old fiction, or should we not say fact? The next point discussed, had reference to the mode of action of this poison. Were the effects produced through the blood or directly by the nerves. He had been led to the conclusion from previous experiments, that all poisons were brought into action through the blood; but this very commonly accepted theory did not explain the immediate and powerful action which followed the exhibition of the minutest dose of the nitrite of amyle. He thought, therefore, that the action was immediately on the nervous system; and that such action, transferred to the filaments of nerves surrounding the arteries, paralysed the vessels, on which the heart immediately injected them, causing the peculiar redness of the skin and the other phenomena that had been narrated. Dr. Richardson, in conclusion, said that nitrite of amyle, like chloroform twenty years ago, was only to be considered as a physiological curiosity. It might by its action suggest the cause of trance, and of what was called hysterical unconsciousness, and it might explain the mode by which certain analogous substances produced their effects on the organism. It had been naturally suggested, that in fainting, as from loss of blood or fear, the inhalation of the nitrite of amyle might be of service. He (the author) did not at the present moment recommend its use in medicine, because of the intensity of its action. This last point was at the present time under his inquiry, and he would report further results at the next meeting of the Association.

Correspondence.

THE ARMY AS A MEDICAL SERVICE.

SIR,—I am occasionally asked by students for my opinion and guidance in the selection of a sphere for their future labours as medical men.

There are a great many reasons why the public services fail to attract the best men of our schools, such as the expatriation entailed, the chances of loss of health in a hot climate, the long continuance in a subordinate position, the defective remuneration, and the peculiar character of the life and duties imposed upon medical officers, as well as the small chances of success held out to an ambitious and energetic man; but the unpopularity of the Army Medical Department has lately exceeded these limits. While the avenues to every public competitive examination are crowded with candidates, the vacancies in the above department are said to exceed greatly the number of applicants. This defect in quantity implies a still worse one in the quality of the men entering the army, which can only be very lamentable for the interests of any public service, and still more so for the unfortunate soldiers individually.

The inducements offered by Government to members of our profession have not been very many at any time; still I have hitherto been content to balance these against the chances of failure in private life, and I have not dissuaded good men from entering the services. At the present time, however, I presume very few teachers counsel their pupils to enter the army. Putting aside its grievous unpopularity, how can I advise a man with any self-respect to enter a service wherein he may be called upon to superintend an official in branding a soldier at the hospital? Anything bearing the semblance of inflicting punishment should never be the duty of a medical man. If the letters of your correspondents ex-

press the truth, then it is time for us to protest against this kind of thing; for, if we do not protect ourselves against the indignities offered by government bodies, it is futile to expect that proper estimation and respect due to us as a profession at the hands of the general public.

I am, etc.,

F.R.C.S. AND HOSPITAL SURGEON.

London, September 19th, 1863.

POISONING BY ARSENIC.

LETTER FROM DANIEL DOUGAL, M.D.

SIR,—As the subject of accidental poisoning is one that deservedly is of considerable interest to the profession, I beg to report the following case, as it occurred within my knowledge a week ago.

A man who trains sporting dogs had been using Fowler's solution of arsenic in the treatment of mange affecting some of his canine pets; and one morning had poured out a little, and gone to the kennel to administer it, leaving the phial standing on a table. A child of twenty months old was in the room, and got hold of the bottle and swallowed, as was afterwards ascertained, at least three drachms (equal to a grain and a half of arsenious acid) before it could be prevented. The child was at once brought to me; and, as the stomach-pump was not at hand, I administered twelve grains of sulphate of zinc, which caused immediate and free vomiting. The pulse was very feeble and rapid, the skin cold and clammy, and the face sunk; and there was drowsiness. With a good deal of difficulty, owing to the resistance of the child, I gave repeated doses of the hydrated sesquioxide of iron, prepared by adding liquor ammoniæ to tincture of sesquichloride of iron, and persevered with the use of it for an hour and a half at intervals. The child vomited repeatedly, and complained of burning over the stomach; but there was no purging. I then administered another emetic of sulphate of copper, with diluent drinks, which acted well. After this, the pulse increased in volume, the skin got warmer, and the symptoms gradually abated; and in a day or two he was almost well.

This case was a very favourable one for a fair trial of the sesquioxide as an antidote, as it was administered within half an hour of the time the poison was swallowed, and before, therefore, it had time to produce very violent symptoms. I may mention, that the child vomited in less than ten minutes after the poison was swallowed.

I am, etc., DANIEL DOUGAL.

Strathaven, Lanarkshire, September 15th, 1863.

SUGGESTIONS FOR VACCINATION.

SIR,—If the Report on Vaccination for 1862 shows that the machinery for performance of that operation is an enormous failure, let us earnestly hope a wise revision of the existing system will take place. Very often proper arrangements are made for the performance of the operation; but I will tell you where the system breaks down. The public vaccinator at the time appointed attends at the station, which is situate perhaps four miles from his surgery. And what happens? Why, often enough, not a single candidate applies for vaccination. Is it his business, for a paltry half-crown, to drive round a scattered parish and beat up some insolent dame (who entertains him with a long history of skin-diseases, past, present, and to come), and wrangle with her over the right to vaccinate the morsel of humanity she carries in her arms? I trow not. The whole affair is managed under the admirable regulations of persons whose system "how not to do it" finds so much favour with all public boards.

A few business men would regulate the whole affair at one sitting. Given a time and place for vaccination;

a proper yearly honorarium to a medical man for his attendance at his post in each parish for a set time each day whilst vaccination is going on, abolishing the present trumpery fee, depending on each spot, or pimple, or pustule; a strict list to be sent into the board-room at the end of the public vaccinator's attendance; a comparison instituted between it and the list of births in the parish; followed by the issue of *printed warnings* to all who have shirked entering an appearance, and an occasional summons if required:—and then parents and the public generally would really believe that compulsory vaccination was a good thing and a necessary, and no longer a bugbear and farce, as it surely now vastly resembles.

I am, etc.,

A COUNTRY UNION SURGEON AND PUBLIC VACCINATOR.

September 1863.

P.S. I have often wondered that Government has not issued a pamphlet for the poor—"Plain Facts on Vaccination"—and circulated it widely. I would write them one gratis with pleasure.

Medical News.

APOTHECARIES' HALL. On September 17th, the following Licentiates were admitted:—

Henson, Sidney Russell, Hull
Wall, George, Stourbridge

At the same Court, the following passed the first examination:—

Cowen, Philip, St. Thomas's Hospital
Pearse, George E. Legge, Westminster Hospital

APPOINTMENTS.

ARMY.

BELL, Staff-Surgeon J. N., M.D., to be Surgeon 5th Foot, *vice* Surgeon-Major F. Reid, M.D.
BLECKLEY, Assistant-Surgeon T. M., M.B., 14th Foot, to be Staff-Surgeon.
CRERAR, Surgeon J., 60th Foot, to be Staff-Surgeon, *vice* R. C. Todd.
GIBAUT, Assistant-Surgeon W. M., 17th Foot, to be Staff-Surgeon.
HARE, Staff-Assistant-Surgeon R. W., M.B., to be Assistant-Surgeon 80th Foot, *vice* J. B. Baker.
REID, Surgeon-Major F., M.D., 5th Foot, to be Staff-Surgeon-Major, *vice* J. N. Bell, M.D.
SAINTER, Staff-Assistant-Surgeon J. D., to be Assistant-Surgeon 94th Foot, *vice* E. McGrath.
TODD, Staff-Surgeon R. C., to be Surgeon 60th Foot, *vice* J. Crerar.
TOTBILL, Staff-Assistant-Surgeon J. H. H., to be Assistant-Surgeon 17th Foot, *vice* W. M. Gibaut.
VENNING, E., Esq., to be Assistant-Surgeon 1st Life Guards, *vice* O. W. George, M.D.

To be Staff-Assistant-Surgeons:—

BAKER, Assistant-Surgeon J. B., 80th Foot.
LIGERTWOOD, Assistant-Surgeon W., M.D., from half-pay.
McGRATH, Assistant-Surgeon E., 94th Foot.
BRENNER, A., M.B.
CHANDLER, E., Esq.
CREYKE, W., M.B.
DAVIS, J. N., Esq.
DOIG, A., Esq.
DUDLEY, W. E., Esq.
FERGUSON, F., M.D.
McNALLY, G. W., Esq.
MARTIN, H. A., Esq.
MARTIN, W. T., Esq.
NASH, W., M.D.
PAGE, W. J., Esq.
QUINTON, W. W., M.B.
SEGRAVE, R. G., Esq.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

CASTLE, W. H., Esq., to be Surgeon 5th Hampshire R.V.

DEATHS.

*COLDSTREAM, John, M.D., of Edinburgh, at Gilsland, Cumberland, on September 7th. Friends will please accept of this intimation.
CROMPTON, On September 6th, at Upper Walmer, Kent, aged 6, Samuel Molesworth, only son of *Samuel Crompton, M.D., of Manchester.
CULLINAN, On September 20th, at Great Malvern, aged 16, Rachel Florence, only daughter of Patrick M. Cullinan, M.D., of Ennis, Ireland.
*HARRIS, Lewis, Esq., at Totnes, aged 28, on September 13.
HENDERSON, Alexander, M.D., of Caskieben, Aberdeenshire, and Curzon Street, aged 83, on September 16.
MOOR, Wm. H., M.D., at Buntingford, Herts, aged 33, on Sept. 19.
MUIRHEAD, Alexander, M.D., Deputy Inspector-General R.N., at Orcadia Villa, Isle of Bute, on September 18.

THALLIUM. The Emperor of the French has conferred on M. Lamy the Cross of the Legion of Honour and a gold medal, the latter on the recommendation of the committee of the Congrès des Sociétés Savantes. (*Chemical News.*)

YOUNG ITALY. We have had here in Naples a congress of the medical men of Italy, which has just terminated its sittings, and though its avowed objects were medical, still the social and political consequences must have been considerable. The simple fact, too, of such a meeting attests that new existence on which the Italians are entering.

CURE FOR HYDROPHOBIA. A woman supposed to have been bitten by a mad dog falls into the hands of a secret curer, who treats her thus: The twenty-five letters of the alphabet are written on twenty-five bits of paper, made into a ball, and swallowed after being well soaked in butter, whilst the curer pronounces certain cabalistic words. Unfortunately, in this case, the cure was ineffectual; for fifteen days later the woman died of hydrophobia.

CAPITAL PUNISHMENT. The Association for the Promotion of Social Science, lately holding its second session at Ghent, has discussed at great length the subject of punishment of death. The abolition was finally voted by a great majority. In the course of the debate, a member read a list of 167 convicts sentenced to death, of whom 161 had been present at capital executions; and he concluded from this fact that the witnessing capital punishment is not efficacious in the suppression of crime.

A CAUSE OF BRONCHITIS. It has been found, in France, that the use of threshing and winnowing machines has produced an immense amount of bronchitis and disease of the throat and chest among the labourers employed, who are exposed to an atmosphere charged with dust, which affects them so powerfully, that in some parishes there are whole families of confirmed invalids. To such an extent has the evil gone, that the *maires* have issued an order that the labourers employed near this machinery must work in veils.

A CASTOR OIL OMELETTE. To those who ask how castor oil may be disguised, the following receipt for an *omelette au huile du ricin* may be interesting. The author is not Francatelli, but a M. Martin. Put the quantity of castor oil required into an earthen pan, and break an egg upon it. Then let the pan be heated, and the oil and egg be shaken up together so as to produce an *œuf brouillé*. A little salt must then be added. A person would eat an omelette of this sort without finding out the presence of castor oil. Perhaps he might; but to make it more probable, we fancy some *finer herbes* might be added without objection. (*Chemical News.*)

TESTIMONIAL. A handsome electro-plated candelabrum or *epergne* was presented by the members of the Norwich Pathological Society to their honorary secretary, Mr. T. W. Crosse, at the anniversary dinner which followed the annual meeting of the society, held on the 10th instant. After the usual loyal toasts, the chairman, (Dr. Lombe), in introducing the toast of the evening took occasion, in an eloquent and appropriate speech, to refer to the very efficient services which Mr. Crosse had so freely given to the society from its very commencement—a period now of fifteen years' duration; and in presenting him with the testimonial, expressed, on the part of the subscribers, a hope that he would accept it as a token of the feeling of regard which they entertained for him personally, as well as of their thanks for his long continued and valuable services, with the addition of a hope that those services would still continue to be available to the society. The candelabrum bore the following inscription on its base:—"Presented to Thos. William Crosse, Esq., by the members of the Norwich

Pathological Society, to mark their sense of his long and valuable services as their honorary secretary. Sept. 10th, 1863."

CONTRABAND OPINIONS AT ROME. "The slightest tinge of liberal opinions is visited by the most odious and vexatious tyranny. Dr. Maggiorani has the highest reputation in physic among the native practitioners. Not long ago he was Professor of Medicine in the University, an office in the gift of the government. He was so persecuted by the government on account of his opinions, that he was driven from his chair. His sons, sharing the opinions of their father, have been banished, regardless of how they are to find their daily bread. Lately the father has been again so harassed and persecuted, that he has at length demanded his passport and prayed for exile. Whether the government has yet complied with his request I cannot say. Signor Feliciani has the same relative superiority in local surgery that Maggiorani has in physic, and he stands in the same predicament from the same cause. Now, all this is persecution for *opinion*, and nothing beyond."

VIPERS IN FRANCE. The large increase of these reptiles in France renders the report presented to the Society of Acclimatisation on the subject by M. Léon Soubeiran of interest. The vipers known in France are, the *Vipera pelias*, the *Vipera aspis*, and the *Vipera ammodytes*. Vipers are extremely irascible; and although they usually take to flight at the approach of man, they sometimes attack him. They sometimes penetrate into houses, and especially dairies, whither they are attracted by the milk. They will visit the sheds where sheep and other cattle are kept, and also baking-ovens, on account of the warmth; but most frequently they are introduced into houses in the faggots used for lighting fires. They remain in a state of torpor during the winter, and make their appearance again in spring, when they are most dangerous. In the morning, they do not creep out of their nests until after the dew has disappeared; hence, the country people take good care to cut the grass for their cattle at an early hour. But those most exposed to danger are reapers, since vipers get into the sheaves in order to lie in wait for rats. When a person has been bit by a viper, a ligature should immediately be made above the wound. The wound should then be sucked, either by the patient himself, or by another person whose mouth is free from any solution of continuity. Then, if the two minute wounds inflicted by the fangs be perceptible, they should be cauterised with a red-hot iron; and if not, the place should be rubbed with ammonia, or else butter of antimony may be applied. Internally, a glass of brandy may be taken, and even repeated, with good effect. All further treatment must be left to the physician. The viper has many enemies, chiefly crows, storks, hedgehogs, and pigs. The park of Chateau-Vilain (Haute Marne) being infested with vipers, the proprietor put some wild boars into it, and in a very short time there was scarcely a viper to be seen. But after the destruction of the reptiles, the boars turned their gastronomic talents to the investigation of the rich truffle-beds for which the park was celebrated, and committed such havoc therein, that the proprietor had all the boars hunted down. Immediately afterwards, vipers re-appeared in such fearful numbers that wild boars had again to be introduced. In some departments, sums have been granted for the destruction of vipers. The destruction of this reptile, however, is best effected by favouring the multiplication of crows and pigs.

SUICIDE OF A DRUGGIST. An inquest was lately held at Sheffield on a woman named Squires, who died in childbirth, and a druggist and accoucheur named Harvey Oakes, who committed suicide to avoid a charge arising out of grossly improper treatment of the woman. Mrs. Squires was seized with labour pains, and was de-

livered by a midwife named Charlton of a child. The midwife ascertained that there were twins. The labour pains ceased after the birth of the first child; and the midwife allowed the woman to remain for twelve hours without making any attempt to deliver her of the second child. At the end of that time, she sent for Oakes, who was a druggist, and who also practised as an accoucheur. He gave the woman two powders to bring on the labour-pains, instead of altering the position of the child. After putting the poor woman in excruciating pain, he tried to deliver her, but only succeeded in mutilating the child. He was then dismissed, and a surgeon (Mr. Shaw) was sent for, and delivered the woman in five minutes. Her system had sustained such a shock that she could not rally, and died. Oakes seemed much agitated at the prospect of the inquest, and poisoned himself with prussic acid. The jury returned a verdict to the effect that the woman died from the effects of the improper treatment by Oakes and Charlton; and also that Oakes committed suicide during temporary insanity.

NAVAL COURTS-MARTIAL. A court-martial was opened at Sheerness on the 17th instant, on board the flag-ship *Formidable*, to try Mr. Charles Foster Williams, the assistant-surgeon of her Majesty's ship *Wrangler*, for being in a state of intoxication, on or about January 27th last, at the house of Captain Webb of the Royal Marines, at Ascension Island. Commander H. H. Beamish of the *Wrangler*, said that on January 27th he was at the house of Captain Webb, when the prisoner came suddenly into the house. He was drunk, and shouted, and was unable to walk steadily. The prisoner put in a written defence, and handed into court twenty-one certificates of character from officers under whom he had served for the last seventeen years with assiduity, attention, and sobriety. The court said that the charge was proved, and that he was to be severely admonished and reprimanded, which was accordingly done.—Another court-martial assembled on board the *Victory*, on the 19th instant, for the trial of Mr. J. A. Leicester, assistant-surgeon of the first class on board the *Pioneer*, on a charge of having lent certain sums of money to seamen belonging to the *Pioneer*, the said sums being made repayable to his (the prisoner's) son with usurious interest. The trial lasted the whole day; a number of witnesses were examined; and the evidence was of a very voluminous character. The court found the charge proved; and sentenced the prisoner to be reduced to second class assistant, and put at the bottom of the list.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY. Western Medical and Surgical Society.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—SEPTEMBER 19, 1863.

[From the Registrar-General's Report.]

	Boys .. 946	Deaths.
During week.....	{ Girls.. 984 }	1930 1186
Average of corresponding weeks 1853-62		1846 1147
Barometer:		
Highest (Mon.) 30.173; lowest (Sat.) 29.584; mean, 29.950.		
Thermometer:		
Highest in sun—extremes (Sat.) 104.0 degs.; (Mon.) 74 degs.		
In shade—highest (Sat.) 71.8 degs.; lowest (Th.) 43.8 degs.		
Mean—50.1 degrees; difference from mean of 43 yrs.—0.4 deg.		
Range—during week, 28 degrees; mean daily, 16.9 degrees.		
Mean humidity of air (saturation=100), 75.		
Mean direction of wind, S.W.—Rain in inches, 0.00.		

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY. Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.
FRIDAY. Westminster Ophthalmic, 1.30 P.M.
SATURDAY.... St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

TO CORRESPONDENTS.

. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

ERRATUM.—In Dr. Bott's letter, at page 332 of last week's JOURNAL, for "the mother is compressed", read "the urethra is compressed."

THE names of the individuals who have been removed from the *Medical Register* are—Evan Thomas; R. Wrixon; Samuel La'Mert; R. Jordan. To prevent any person whose name has been removed from the *Register* from finding his way again into that book, the Medical Council have requested all Examining Boards not to admit any such person to examination, without communicating with the General Council.

APOTHECARIES' HALL AND THE MEDICAL COUNCIL.—The following part of an advertisement, from our professional brother Mr. Lacey, is interesting and amusing. Apothecaries' Hall and the Medical Council deserve well of the profession for introducing the gentleman among us.

"Mr. Lacey, Licentiate of the Society of Apothecaries of London, Medical Herbalist, and registered a legally qualified practitioner of medicine, begs to acquaint his numerous friends and the public generally that his five and a half years of persecution by a portion of the medical faculty of Shrewsbury, was brought to a close on the 10th ult., by the Medical Council of England ordering him to be registered a Licentiate of the Society of Apothecaries of London, thus constituting him a member of the medical profession of the United Kingdom; he having proved to the satisfaction of the said Council that the statements of the above persons to them regarding the manner in which he (Mr. Lacey) had obtained his certificate from the Apothecaries' Hall, London, was entirely false, and that it had been obtained by him in a perfectly honourable manner by examination, he having complied with all the requirements of the Court of Examiners, prior to examination by them at their Hall in London.

"Mr. Lacey is very sorry there should have been so much ill-feeling displayed towards him merely on account of his superior success in his practice; he having, in the short space of a few years, fully restored to a perfect state of health forty-nine persons, whom other medical practitioners, and, in many of the cases, the most popular men of all in this and the adjoining counties, had given up and left to die, without any hope whatever. Forty-five of them are, to the best of his knowledge, alive and well at the present time. Most of them are living in or a few miles from Shrewsbury, and will at any time testify to the truth of what he here asserts. This is the source of all the envy and ill-feeling with which he has had to contend.

"Mr. Lacey considers the public ought to be made acquainted with the real facts of the case; viz., that he is a Licentiate of the Society of Apothecaries of London, a registered legally qualified practitioner of medicine, and that he of course still continues to practice; trusting, by the blessing of God, to be as successful in his future medical engagements as he has been in the past.

"The Wyle Cop, Shrewsbury, Sept. 7th, 1863."

COMMUNICATIONS have been received from:—MR. W. MICHELL CLARKE; MR. C. H. MARRIOTT; MR. T. T. GRIFFITH; MR. HAYNES WALTON; MR. T. WATKIN WILLIAMS; DR. ACLAND; MR. WILLIAM CADOR; DR. JAMES WILLIAMS; MR. G. W. HASTINGS; THE SECRETARY OF THE ROYAL NATIONAL LIFE-BOAT INSTITUTION.

THE ORIGINAL CHLORODYNE,

INVENTED AND MANUFACTURED, IN 1844, BY RICHARD FREEMAN.

(Extract from Affidavit made before S. C. WARD, Esq., Chancery Record Office, Chancery Lane, London, June 16th, 1862.)

The Inventor begs to thank the Medical Profession for the liberal support he receives from them, and to assure those who have not yet tried his Chlorodyne that it is superior to any other maker's, being more certain and more lasting in its effects; and the low price which he charges for it allows the poorest sufferer to enjoy its extraordinary beneficial influence. The immense demand for it by the Profession is a convincing proof that they find it a most valuable therapeutical agent. The following are a few out of many voluntary Testimonials:—

From W. VESALIUS PETTIGREW, M.D., Hon. F.R.C.S. Eng., formerly Lecturer upon Anatomy and Physiology at the St. George's School of Medicine.

"I have had the opportunity of trying the effects of Mr. Freeman's Chlorodyne, and find it an excellent Anodyne and Antispasmodic medicine."

From H. J. O'DONNELL, M.R.C.S.E. & L. M. etc., etc., Albert Terrace, London Road, S.

"I can with much confidence bear testimony to the efficacy of Mr. Freeman's Chlorodyne as a Sedative and Antispasmodic, having used it for some years in Colic, Neuralgia, Phthisis, and Asthma. I daily administer it in after-pains, and in all cases find it infallible. It is the most valuable medicine we have in Labour cases. I find, since I have used it, the pains seldom or ever exceed the third day, while with the former remedies my patients suffered eight or nine days. In fact, I cannot speak too highly of it."

From F. W. HOOPER, M.D., M.R.C.S. Eng., etc., etc., Medical Officer, Christ Church District, Camberwell.

"I have much pleasure in stating, that after a sufficient trial of Mr. Freeman's Chlorodyne, I am fully persuaded that it is superior to any preparation of the kind, and, from its moderate price, is a great boon to the suffering poor, who daily acknowledge its salutary benefit."

From C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, etc., etc.

"Having been in the habit of using Mr. Freeman's Chlorodyne for some time past, I have much pleasure in stating that it has never failed to have the desired effect in whatever case it has been administered."

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And Sold by all Wholesale Houses, in bottles, 1 oz., 1s. 6d.; 4 oz., 5s.; and 8 oz., 8s. 6d.

Pulvis Jacobi ver, Newbery

Is the ORIGINAL & GENUINE, was ESTABLISHED A.D. 1746,
And is Prescribed, "by the highest authorities, for Fevers, Ague,
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CAUTION.—For the convenience and safety of prescribing Chlorodyne, in combination with other ingredients, so as to avoid decomposition (a result known to have taken place) through the use of SECRET COMPOUNDS, the Profession is directed to the following component parts in his preparation:—

CHLOROFORMYL
ETHER.
OL MENTH. PIP.

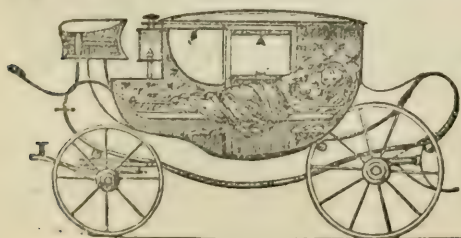
ACID. PERCHLOR.
TINCT. CANNABIS INDICÆ.
ACID. HYDROCYAN.

TINCT. CAPSICI.
MORPHIA.
THERIACA.

The proportion of Morphia— $\frac{1}{2}$ gr. in f. 3i. Dose—Five to twenty Drops.

Letter from ALFRED ASPLAND, Esq., F.R.C.S. Eng., J.P. Chester and Lancaster, Surgeon 4th Cheshire Batt. V.R., Surgeon to the Ashton Infirmary.—"After an extensive trial of your Chlorodyne in Hospital, Infirmary, and Private Practice, I am able to state that it is a valuable medicine. I have found its action peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections. I have never found it produce headache or feverish disturbance, results which not unfrequently occur from other forms of Chlorodyne. As a sedative to allay excitement arising from the abuse of intoxicating drinks, so commonly witnessed in our Barrack Hospital, I have been perfectly satisfied with it. Its known composition will doubtless prove an additional recommendation to the Profession."

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Clinical Records.

BY

HENRY LEE, Esq., F.R.C.S.,

SURGEON TO ST. GEORGE'S HOSPITAL.

XI.—EXCISION OF KNEE-JOINT.

BENJAMIN BENNETT, aged 8, admitted into St. George's Hospital, on April 14th, 1863. Three years previously, he had been thrown out of a wheelbarrow, and hurt his knee, which, six weeks afterwards, was found to be enlarged. Various plans of treatment were adopted. The joint was enveloped in Scott's bandage for six weeks; and he was sent for eight months to Margate.

On his admission into the Hospital, the leg was fixed at nearly a right angle. The lower extremity of the femur was very considerably enlarged; and there was a sinus, discharging a thin matter, situated about four inches above the joint on the outer side.

No plan of treatment having produced any benefit, and being apparently useless, it was determined to perform excision of the joint. Accordingly, on April 23rd, the boy having been placed under the influence of chloroform, a single transverse incision was made across the front of the knee on a level with the lower extremity of the patella. This incision was carried into the joint, the skin was then dissected off the patella, and another incision was then made above the patella, which was then removed without the loss of any portion of the skin. The attachments of the femur and tibia having been separated, the articular surfaces of the two bones were sawn off. But, owing to the thickening of the lower extremity of the femur, it was found that the leg could not be straightened, a further portion of the femur was now therefore removed. This was wedge-shaped, the thick edge forward. No bleeding occurred, and no vessel was tied. The divided edges of the skin were brought together by four sutures. The leg was placed on a straight splint, and swung in one of Salter's cradles.

April 24th. He had passed a restless night. There had been a very slight oozing of blood. He was sick after his breakfast. Pulse 100. The tongue was coated with a white fur. His cheeks were flushed. He had much pain in the situation of the knee.

On the 25th and 26th, he appeared tolerably comfortable, but the tongue became more coated.

May 1st. He was sick after his dinner. Pulse 140.

May 2nd. He passed a tolerably good night; had no pain in the knee. He was sick last evening. Pulse 120.

May 4th. Pulse 128. Tongue cleaner. He had no headache. The skin was cool and comfortable; appetite improved.

May 9th. Had had little sleep during the night. Pulse 120. He was sick yesterday. The skin was cool, and the countenance free from anxiety.

May 14th. A considerable collection of matter had taken place on the outer and lower part of the thigh. The matter partially escaped through the sinus in this situation.

May 20th. Pulse 115. He slept tolerably well; and was free from pain.

May 23rd. The incision made by the operation had nearly united; but a considerable quantity of matter discharged from the sinus in the thigh. Pulse 120; skin cool; appetite good.

May 31st. The cicatrix of the wound was becoming firm. There was less discharge from the sinus. There was general improvement.

June 19th. Pulse 120. The sinus still discharged; but the wound made by the operation was firmly healed.

June 22nd. A straight splint was applied behind the joint, and the swing was dispensed with.

June 27th. All splints were discontinued. The discharge from the sinus was very slight.

July 4th. He was dressed lying outside his bed. He could put his leg to the ground without pain.

July 14th. He could get about easily with his crutches, and was beginning to bear the weight of his body on his leg.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

HULL GENERAL INFIRMARY.

REPORTS OF CASES.

Reported, with Remarks, by C. J. EVANS, Esq.,
House-Surgeon.

CASE I. *Acute Pericarditis; Death; Autopsy.* G. S., aged 20, steward's mate on board H.M.S. *Cornwallis*, was admitted into the infirmary on May 3rd, 1858, under the care of Mr. Huntington. He had been under treatment one week. He was suffering much from dyspnoea; the respiration was short and hurried; the face pallid; and the expression anxious. On auscultation, a pericardial friction-sound was audible; respiration was puerile at the upper part of the right lung, very feeble on the left side, which scarcely expanded at all. The breathing was chiefly abdominal. He had no cough. There was the mark of a mustard plaster on the chest. There was no history of rheumatism. Four leeches were ordered to be at once applied to the region of the heart, and to be followed by a blister; and two grains of calomel and half a grain of opium to be taken every four hours, with a dose of saline effervescent mixture, containing some spirits of nitric ether.

May 4th. He passed a tolerable night. The breathing was a little easier, but he sat propped up in bed.

May 5th. The pericardial friction-sound was somewhat less distinct, and there was no extended dulness in the region of the heart. The bowels became much relaxed, and he was ordered to omit the pills.

May 8th. The friction-sound was now much louder, and the heart's action very rapid; orthopnoea was extreme. He was ordered two and a half grains of blue pill and a grain of opium in a pill every four hours; and five minims of tincture of digitalis to be added to each dose of the mixture.

May 9th. He passed a very bad night, and was evidently worse. Countenance more anxious and sunken. A blister was ordered to be applied to the chest. He died at eleven the same morning.

AUTOPSY, the following day. There was about a pint of serum in the right pleural cavity, and toughish adhesions of some standing throughout the left. Both lungs were congested. On opening the pericardium, a small quantity of fluid escaped; but the heart was found to be adherent to it on almost every part of its surface, requiring the aid of the finger to effect its separation. The entire surface of the heart presented an uniform roughness, in some parts having a distinct honeycomb appearance, while in others there were complete ridges of lymph; and an exactly corresponding appearance was seen on the inner surface of the pericardium. The heart itself was somewhat hypertrophied; and there was thickening of the mitral valve, with some warty vegetations on the aortic valves. No endocardial murmur was

audible during life. If there had been one, it was probably masked by the loudness of the pericardial friction-sound.

CASE II. Spurious Croup, following Hooping-cough and Scarlet Fever; Recovery. W. S., aged 4 years, was admitted under the care of Dr. Sandwith on June 22nd, 1858, with symptoms of croup. He had been supplied with medicine at the surgery the previous day; but, not being so well, he was taken into the house. He had had cough and shortness of breath for about a fortnight, during which time he had been a patient at the Hull Dispensary. Before that, he had been suffering from a severe attack of scarlatina, which came on during his convalescence from a previous attack of hooping-cough. This latter had commenced about four months before his admission, and he was at that time an out-patient under Dr. Sandwith's care. He had made a good recovery from the scarlatina, when the symptoms of croup showed themselves. He had never had measles. He had a slight discharge from the right ear, which his mother stated had existed ever since he was four months old. He was ordered to take every two hours a teaspoonful of a mixture of grs. xvi of ipecacuanha in an ounce of water, together with a powder containing one-sixth of a grain of tartar emetic and half a grain of calomel. A small blister was applied to the sternum; and he was also ordered a warm bath.

June 23rd. The symptoms had somewhat abated; the respiration was less noisy. He was ordered to continue the medicines every four hours, and to take two teaspoonfuls of castor oil at once.

July 1st. He was gradually improving; he only coughed a little at times. The powders were ordered to be taken three times a day only.

R. Vin ipecac. 5j; spiritus ætheris nit. 3iss; aqua ad 5ijj. M. Capiat cochleare minimum unum ter die. He was discharged well on July 7th.

REMARKS. The symptoms were not those of genuine croup, but partook of the character of those of bronchitis. The sputa did not contain portions of lymph thrown off from the trachea and bronchial tubes, but were mucopurulent. The cough and respiration, however, were indicative of croup.

CASE III. Polypus Uteri; Ligature; Recovery. F. J., aged 43, a widow, and without family, was admitted under the care of Dr. Sandwith on September 10th, 1858. She had suffered much at different times for more than a year from pain in the loins and abdomen, of a bearing down character; and had had a vaginal discharge, almost always sanguineous, for a long time. It existed at the time of her admission; and her face was pallid and anæmic. She frequently was troubled also with bilious vomiting. She was ordered at first eight grains of gallic acid three times a day, and nourishing diet, with porter.

The hæmorrhage gradually subsided to a great degree, but did not entirely cease; and she was ordered ten drops of the muriated tincture of iron three times a day. An examination *per vaginam* was afterwards made, and the finger detected a polypus projecting through the os uteri, which could be felt encircling the neck of the polypus. It was about the size of a ripe fig, and bled a little on being handled much.

On consultation, it was decided to remove the growth; but the operation was deferred on account of a severe attack of influenza, which lasted some time. The operation was performed by Dr. Lunn, on November 11th; the polypus being drawn down by a vulsellum, and a ligature of copper wire placed around its neck by means of Goosch's double cannula. The ligature was drawn away, together with the growth, on the 15th, four days after the operation. Warm water was injected into the vagina daily, and afterwards a solution of sulphate of zinc.

She improved rapidly after the operation, had no more

hæmorrhage, and was discharged cured at the end of the month.

CASE IV. Ovarian Dropsy; Paracentesis; Recovery from the Operation; Death Five Months afterwards, consequent on Increase of the Disease and Exhaustion. E. B., aged 58, married, the mother of four children, was admitted under the care of Dr. Sandwith on January 13th, 1859, suffering from ovarian dropsy. The disease had commenced six years before with a swelling on the left side of the abdomen. She had been in the infirmary, under Dr. Sandwith's care, for some time during the spring of 1858; but she left at her own request, being unwilling to submit to the operation of tapping. She received some benefit, however, from the use of diuretics and anodyne liniments. She continued pretty well for some time after leaving; but of late the swelling had increased, so that at the time of admission the circumference of the abdomen measured $47\frac{1}{2}$ inches. There was extreme tension of the integument of the abdomen, and œdema of the lower limbs, dyspnoea and troublesome cough, and she could not hold her urine perfectly. The slightest percussion on one side the abdomen was instantaneously conveyed to the opposite, leading to the inference that there was one large ovarian cyst. There was dulness on percussion over the whole of the front of the abdomen, and resonance in the lumbar regions. She was ordered a mixture for the cough, a sedative at night, and nourishing diet, with three ounces of wine daily.

Her strength being recruited a little, it was thought advisable to delay the operation of paracentesis no longer; and it was performed by Dr. Lunn on the 28th, a full sized trocar being used. The fluid which escaped at first was of a dark greenish-brown colour, and very thick; after this had continued to flow for some time, a gush of a thinner and more watery fluid took place, and continued to escape through the wound when the cannula was removed. A portion of thin membrane also presented itself at the wound, and was withdrawn; it was of most delicate structure, admitted of being inflated and dried, and was doubtless a portion of cyst-wall. In all, three gallons of fluid were evacuated, the mixed fluid having a specific gravity of 1025, and coagulating to a solid mass on boiling. The thinner fluid which escaped at last most probably was the contents of another cyst. When all the fluid was drawn off, the abdomen presented a hard and lobulated feel to the hand, as of an irregularly shaped tumour deeply seated close to the spine. The woman was put to bed in a comfortable state, having borne the operation well. Half a drachm of sedative liquor of opium was given at once, and repeated at bedtime.

Jan. 29th. She had a very fair night. She now breathed with much greater freedom. Pulse 80, of moderate volume.

Jan. 30th. She expressed herself as feeling greatly relieved. She had vomited a quantity of greenish bilious fluid in the night, but the sickness had now ceased. She was ordered to have three ounces of brandy daily.

Jan. 31st. The abdomen now measured six inches less in circumference than before tapping; viz., $41\frac{1}{2}$ inches. The urine was not very free. She was ordered two ounces of gin daily, instead of brandy.

Feb. 7th. She complained of some little pain in the abdomen, which now measured 40 inches in circumference. The urine was more copious, and she slept well; but the cough was troublesome at times. She was ordered to rub a volatile liniment on the abdomen night and morning, and to have half a pint of porter daily.

March 14th. She had remained much in the same state since the last date. The abdomen now measured 41 inches. The umbilicus had always been rather prominent, but was much more so now; and it was evident there was a hernial protrusion at that part. A graduated compress and bandage were applied.

She left the hospital on April 2nd, at her own request, having considerably recruited her strength.

She was readmitted on June 15th, in an extremely exhausted and feeble condition; and she had become much emaciated. The abdomen was still greatly enlarged, measuring 39 inches in circumference; and the superficial veins very prominent. She stated that, some little time before her admission, a good deal of fluid (two or three pints?) had flowed from her navel. There was some excoriation of the mouth, and she got no sleep at night. The following medicines were ordered.

R Decocti cinchonæ ʒssj; tinct. cinchonæ comp. ʒi. M. Capiat ʒi bis die.

R Solæ bicarbonatis ʒij; tincture myrrhæ ʒss; aquæ ad ʒviij. M. Fiat lotio ori applicanda.

She was ordered to take half a grain of muriate of morphia in a pill every night; and to have four ounces of wine, with milk and beef-tea, as diet.

June 17th. She was ordered to have three ounces of brandy in addition. She was much weaker. She could keep nothing upon her stomach; and she gradually sank, and died late at night on the 19th, four days after admission.

AUTOPSY, twelve hours after death. Emaciation was extreme. There was some œdema of the right lower extremity. On making an incision along the abdomen, the peritoneal lining, which was much thickened, was found to be adherent, firmly in front, to the tumour, which occupied the whole of the abdominal and pelvic cavities. There was a large quantity of recent lymph on the tumour and in the abdominal cavity, as well as some fluid. The tumour was without difficulty turned out of the abdomen, the adhesions to the structures behind being very slight, and, when fully exposed, was found to be more distinctly multilocular, a large cyst, of the size of a child's head, occupying each lumbar region; and in front one cyst of larger size, with several partitions in it; besides several other smaller distinct cysts. The pedicle was apparently attached to the side of the uterus. The right ovary could not be found, its place being occupied by a gelatinous-looking mass. The abdominal viscera were pushed up under the ribs, and covered in by a complete coating of lymph. The tumour, when removed, weighed between seventeen and eighteen pounds.

REMARKS. The slight adhesion of the tumour to the back of the abdomen would have been very favourable for the operation of ovariectomy; but the much firmer and older adhesions to the peritoneum over the entire front of the abdomen would have rendered it very difficult, and doubtful as to the result. At the time of the woman's admission on the second occasion, however, any idea of operative proceedings was entirely out of the question, on account of her exhausted condition. Percussion of the abdomen gave results so delicate, that the cyst was supposed to be unilocular; but the result of the tapping and manipulation of the abdomen afterwards pointed to its multilocular character. The whole front of the tumour was, however, as before said, apparently formed of one entire cyst, slightly lobulated, or containing partitions; and this circumstance doubtless contributed to produce that physical sign on which, among others, the diagnosis was based.

CURE FOR GIBBOSITY. There is a saint at Bergamo whose speciality, it seems, is to cure "gibbosity." The other day a person afflicted with a hump, after praying for some time, went up a ladder to the niche of the saint, "in the presence of countless witnesses." To their amazement, as he ascended the hump gradually diminished, and finally altogether disappeared. A sceptical French paper, however, asserts that on examination it was found that the hump was a block of ice the man had under his clothes, and which melted away under the influence of the natural heat of his body.

Original Communications.

RETINO-CHOROIDITIS, WITH SUBRETINAL EFFUSION: EVACUATION OF THE FLUID AND ARREST OF THE DISEASE.

Under the care of HAYNES WALTON, Esq., Surgeon to St. Mary's Hospital, and to the Central London Ophthalmic.

THE following case occurred to me in private practice during this year; but I could not publish it with accuracy, except for the notes taken at the time for me by Mr. C. J. Aldridge, who has long rendered me much service at my Ophthalmic Hospital.

A somewhat stout man, about 50 years of age, applied to me, complaining of much loss of vision in the left eye, unattended by any pain, but accompanied by floating streaks and spots. It was a couple of weeks before that the defective state was suddenly discovered. The exterior of the eye appeared perfectly normal, the pupil acting naturally. He was able to see a finger held to the temporal side of the eye, but could not see it at all when held on the nasal side, or in front. Vision with the right eye was perfect.

On examining the left eye, previously prepared with atropine, by the ophthalmoscope, the optic disc was observed to be considerably congested, with the margin somewhat hazy towards the external side, and the surrounding fundus generally congested. Externally to the nerve, there was an extensive detachment of the retina, involving the yellow spot, and as much as would be included in a circle, having for its radius a line drawn from the yellow spot to the edge of the optic disc. The detachment presented a dull grey appearance in the area of the pupil; and here and there retinal vessels could be imperfectly distinguished lying upon it. Small doses of grey powder were ordered; and, after five pills were taken, slight salivation ensued. The pills were then discontinued; the patient's condition remaining much the same.

I now decided to evacuate the retinal fluid by puncturing the sclerótica at the seat of the detachment. The eye having been inverted to its utmost extent by Mr. Aldridge, I punctured near to the insertion of the optic nerve. The fluid rushed out, and rapidly filled the meshes of the connecting tissue between the sclerotic and optic capsule, forming a large swelling, and proving, by its escape, the correctness of the diagnosis and accuracy as to the situation of the effusion.

The eye was examined with the ophthalmoscope ten days after the operation; the disc still remained a good deal injected, though less so than before; the retina over the yellow spot, and at the seat of the effusion, appeared to have resumed its proper position. It had a somewhat milky appearance, and the retinal vessels were distinctly seen ramifying over it; and the red choroid shining through the opalescent membrane. On the external side of the optic disc was a white semilunar patch, its concave edge being continuous with the disc, and the choroid bordering its convex margin was denuded of the superficial pigmental layer, and the vessels were undergoing atrophy. This change was, of course, in the choroid. Two or three of the retinal vessels were seen to cross the white patch. The rest of the fundus was somewhat hyperæmic. The vision was in much the same condition as before the operation, being neither better, nor worse.

So far as I know, the operation done here, was originally suggested by Mr. Bowman; and I have thought sufficiently well of it to adopt it, although I regret that

the originator has not published his views on the matter. It was not undertaken by me to restore sight—there could be no reestablishment of the function of a detached portion of the retina, as it is for ever lost—but to avert further effusion, and other mischief.

There is a great tendency for this sub-retinal dropsy to continue, till the whole retina is detached. This state would seem to be the result, or end of inflammation at the fundus of the eye, and most likely in this instance, of a subacute form.

Much labour and pains, and long observation are needed to enable me to speak with authority on the curative or beneficial effects of the operation, but I think there may be reasonable expectation of its arresting effusion, and by that, saving any undetached part of the retina. It is something, too, to remove the floating image that troubles the person.

By checking, too, further disorganisation, it is possible that much may be saved indirectly in some cases, in preventing sympathetic implication of the sound eye. This effect is not produced except the unhealthy eye pass into a state which is productive of pain, perhaps in paroxysms, but for the most part constant pain.

If we desire to improve surgery, any practical hints with any shew of reason should be worked out by those who have the opportunity, especially when no risk of untoward circumstances is involved. It is hardly possible to imagine any drawback to this mode of tapping the eye, or anything more than might attend a like operation on the front of the organ; I mean the puncture of the cornea with a needle to evacuate the aqueous fluid.

REMARKS ON THE USE OF DIGITALIS IN THE TREATMENT OF INSANITY.

By C. L. ROBERTSON, M.B. Cantab., Medical Superintendent of the Sussex Lunatic Asylum, Hayward's Heath; Editor of the *Journal of Mental Science*.*

DR. THOMAS MAYO, late President of the College of Physicians, in his Essay on the *Elements of the Pathology of the Human Mind* (London, 1838), has the following observation bearing on the subject which I am permitted to-day to bring before this Association. "The intention of sedatives," he writes, "is in every stage of the disease a wise one. By soothing the insane patient, we at once give him wholesome strength and reduce morbid action. Of all the medicines which possess this virtue, opium has been, in my experience, the least valuable, and digitalis the most so."

The experience of the last eighteen months of the use of digitalis in the treatment of mania, leads me to endorse Dr. Mayo's statement of its great efficacy as a sedative, as contrasted with the drug most relied on in our English practice—opium. In saying so, of course I do not impugn the great value of opium in the treatment of melancholia: I only say, with Dr. Mayo, that, as a general sedative, I prefer digitalis to opium in the various forms of mania.

Professor Garrod of King's College directed my attention, about eighteen months ago, to the probable advantage which might follow the use of digitalis in cases of cerebral excitement; and I have since then used several quarts of the tincture in my practice at Hayward's Heath.

I shall divide the few remarks which I am about to

make to-day, on the use of this drug in the treatment of insanity, under the three heads of—

- I. The History of the Use of Digitalis in the Treatment of Insanity.
- II. The Physiological Action of Digitalis on the Cerebro-spinal System.
- III. The Medicinal Use of Digitalis in the Treatment of Insanity.

I. *History of the Use of Digitalis in the Treatment of Insanity.* So far as I know, digitalis is not at present in favour, or much employed in the English asylums as a medicinal agent in the treatment of mania.

In Dr. Bucknill and Tuke's *Manual of Psychological Medicine* (second edition) the use of this drug is not mentioned.

In the *Lettsomian Lectures on Insanity*, the author observes that "in some forms of acute mania, as a substitute for depletion (*a substitute, by the way, for a remedy which is never required*), nauseating doses of tartrate of antimony may serviceably be combined with the tinctures of digitalis and hyoscyamus. . . . The tincture of digitalis," he adds, "was formerly in great repute as an anti-maniacal remedy; the experience of late years has not encouraged us in administering it in the doses prescribed by the old writers; nevertheless, it is an useful agent, and occasionally proves a valuable auxiliary in the hands of the practitioner who carefully observes its therapeutic operation."

Dr. Noble, in his *Psychological Medicine*, does not refer to the use of this drug in the treatment of mania.

On the other hand, I might fill many pages with extracts from the English writers of the earlier part of this century, on the value of digitalis as a remedial agent in the treatment of insanity. I believe Dr. Halloran, physician to the Cork Asylum, who published his work on insanity in 1818, was the first to direct attention to the value of this remedy. Dr. Burrows, in his *Commentaries on Insanity*, published in 1828, speaks favourably of its use. "In reference to the use and effects of digitalis in mania," he writes, "it will be seen that I have drawn copiously from the observations of Dr. Halloran. I confess, however, that I have not had such surprising success with it, in the cure of insanity, as he and his correspondents describe. I may not always have observed so strictly the essential and preliminary rules. At the same time, I have seen sufficient of its powers to have much confidence in them."

It is not a very profitable study, this search after the views of our predecessors in the treatment of insanity. The broad gulf of the restraint system lies between us and them; and I, for one, do not care to cross it. Moreover, their whole medicinal treatment was based on the theory of the inflammatory origin of insanity, and, worse still, on the value of the antiphlogistic treatment in this and other inflammations, and thus it is labour lost to follow them in their moral and medicinal empiricism, by the light of which they strove to treat the varied manifestations of the morbid mind. Indeed, the revelations of the state of Bethlehem in 1814, disclosed by the Parliamentary committee of 1815, of the treatment of acute mania by cold, hunger, blows, chains, and straw, effectually extinguish any remaining interest in the pharmaceutical means which the physicians of that hospital then brought to the aid of these moral agents.

It is only within the last twenty-five years—since the publication in 1839 of Dr. Conolly's first Hanwell Report—that medical science can be said to have had such a direct control of the treatment of insanity as to make the results of any value as guides for the future; and the fruit of the labour of these twenty-five years is worthily enshrined in our English *Manual of Psychology* by Drs. Bucknill and Tuke.

Again, the notices of recent French and German

* This paper was placed on the agenda to be read at the late annual meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane, held at the Royal College of Physicians, July 9th, 1863. The important discussion which took place on the Reform of B-tildren Hospital, prevented the reading both of Dr. Maudsley's paper "On Homicidal Insanity," and of these "Remarks on the Use of Digitalis in the Treatment of Insanity." I now print them here in the form in which I intended to have read them.

writers on mental science of the use of digitalis are slight and vague. Thus, I find that M. Marcé, in his *Traité Pratique des Maladies Mentales* (reviewed in the July number of the *Journal of Mental Science*) merely alludes to digitalis, saying that "by its special action on the heart, it moderates the activity of the circulation, and so may aid in reducing acute excitement"; and M. Dagonet, in his compilation (noticed in the same place), has a similar observation.

Griesinger simply mentions digitalis, with leeches and other sedatives, as of value in the treatment of recent mania.

In similar terms writes Dr. Maximilian Leidesdorf, the Lecturer on Psychology in the University of Vienna, in his recent work on the *Pathology and Therapeutics of Mental Disease*:—

"Opium and its preparations, which I have stated to be so valuable in certain forms of melancholia, is rarely serviceable, but often most injurious, in cases of maniacal excitement.

"Of the narcotics" (continues Dr. Leidesdorf) "which act directly on the nervous centres, digitalis is the one most to be relied on. It has this advantage, that its action can be kept up for a long period without danger, and that the pulse forms an accurate measure of the quantity to be given."

Dr. Erlenmeyer, in his *Essay on the Treatment of Recent Mental Disease*, merely says of digitalis that it is of value when there is increased action of the heart and cerebral vessels.

II. *Physiological Action of Digitalis on the Cerebro-spinal System.* The physiological action of digitalis is still undecided. The generally received opinion that it exercises a depressing influence over the action of the heart, and therefore leads to accumulation and coagulation of the blood in its cavities, has been questioned by Dr. Fuller, who, on the contrary, thus sums up his experience of the action of this medicine on the heart:—

"1. During many years, I have observed, that the cases of heart-disease most benefited by digitalis have been those in which the heart has been weak and dilated, and the pulse feeble and irregular. In these the pulse has become stronger, and steadier, and less frequent, under its action.

"2. In the only cases in which I have known death to occur suddenly during the administration of digitalis, the heart has been hypertrophied and firmly contracted. This may have been a coincidence; but, viewed in connection with the results of experiments to which I shall presently refer, it is, at least, a suspicious fact.

"3. Dr. Dickenson has pointed out (*Med.-Chir. Trans.*, vol. xxxix.), and I have repeatedly verified his observation, that digitalis, if given in full doses, induces violent uterine contraction, and checks uterine hæmorrhage; and, inasmuch as its action in staying menorrhagia and uterine hæmorrhage is permanent, it seems fair to conclude that it gives tone to the capillaries, and increases their contractility.

"4. This view is borne out by what I have long since observed relative to its action in arresting hæmoptysis; viz., that, whilst effecting the object required, it does not weaken, but rather increases, the force of the pulse, though it lessens its frequency.

"5. When patients die of delirium tremens, the pulse is usually rapid and fluttering before death, and the heart is found weak, flaccid, and distended with blood afterwards. These are just the cases in which, on the commonly received doctrines as to the action of digitalis, the drug ought necessarily to prove fatal, and yet modern experience has shown that in these cases it is tolerated, even in excessive doses. My impression is, that its remedial action in these cases depends on its stimulating the heart, subduing its irritability, and increasing the tonic and contractility of the heart and capillaries, so that the brain is better supplied with

blood, and the effusion of its more fluid parts, which gives rise to the "wet brains" of habitual drunkards, is avoided.

"6. It has been proved by experiments on animals (Dr. H. Jones) that when death is induced by digitalis, the heart is not flaccid and distended with blood, as is commonly supposed, but, on the contrary, empty, contracted to the utmost, and in a state of tonic spasm. All these facts confirm my view as to the action of digitalis; and if it is correct, its practical importance in relation to the treatment of cardiac dilatation can hardly be over-estimated."

Dr. Arlidge, in his Report on Foreign Psychology (*Journal of Mental Science*, July 1863), gives the following summary of Professor Albers's researches on the therapeutical action of digitalis:—

"1. It reduces the pulse in frequency, but at the same time does not disturb the rate of breathing. Even when the heart is empty and brought to a standstill, the regularity of the respiration proceeds. 2. Alterations in the urinary secretion; an increased quantity of urine in the healthy, and a still greater augmentation when the drug is given in inflammatory dropsy accompanied by inflammatory irritation of the serous membranes of the chest and abdomen. It subdues the inflamed state of the kidneys, and restores them to their normal functional activity. In mental disturbance dependent on cerebral inflammation, especially of the serous membrane, digitalis exerts a remarkably curative effect when given after preliminary abstraction of blood and the use of antiphlogistics. 3. The solid constituents of the urine are increased in amount, and particularly the urea, as shown both by chemical examination and by an increase of specific gravity. This alteration in the urine becomes manifest, when the digitalis has reduced the frequency of the pulse and produced a feeling of lassitude. 4. Reduction of the temperature of the body, and its equalisation. 5. Vertigo, lassitude, debility, and moroseness, accompany the reduction of the pulse by the drug. The last-named condition is a remarkable symptom associated with the operation of digitalis on the system. 6. This medicine is applicable only to those cases of madness dependent on some inflammatory lesion."

The physiological action of digitalis is a subject which would well repay a carefully conducted series of experiments. Unfortunately, I am unable to contribute to our information on this part of the question. With neither the skill, leisure, nor opportunity, to conduct such observations, like most other physicians engaged in active practice, I am content either to apply to the cure of disease, the results obtained by the scientific research of others, or, as at present, to follow the teaching of empirical experience. So far is the art of medicine yet removed from the certainty and exactness of science. The following remarks by Dr. Pereira state, I suspect, all that is yet known of the physiological action of digitalis in the presence of cerebral disease:—

"Foxglove may prove occasionally serviceable by repressing excessive vascular excitement which sometimes accompanies cerebral affections. Furthermore, the specific influence of this remedy over the cerebro-spinal system may now and then contribute to the beneficial operation of foxglove. But the precise nature of this influence not having as yet been accurately ascertained, while the pathology of the above-mentioned diseases is involved in considerable obscurity, it follows that the therapeutic value of this influence can only be ascertained empirically."

II. *Medicinal Use of Digitalis in the Treatment of Insanity.* I wish now briefly to state the practical results of my experience in the use of digitalis in the treatment of insanity.

a. *Dose and Method of Administration.* With a wholesome fear of a coroner's inquest, I have not ventured on

half-ounce doses, and I can report nothing as to their effect. I believe they would be too much for the average stamina of our patients. I have never given more than drachm doses; and I have usually found two or three days of such doses three or four times a day brought on the poisonous symptoms of the drug, with intermittent pulse, great reduction in frequency, and oppressive nausea. The respirations were also reduced in number; and the specific gravity of the urine lowered, and, so far as I know, the quantity increased by the use, in drachm doses, of the tincture. Thus, in a case of general paresis, in the second stage of mental alienation, on which I made some observation last November, the following results were shown:—

	Hour and dose.	Pulse.	Urine.	Respiration.
November 15.	9 A.M. 5j	81	1022	28
	12 NOON 5j	67		26
	3.30 P.M. 5j	76		28
	8 P.M. 5j	69		26
November 16.	9 A.M. 5j	81 intermit.	1009	26
	12 NOON.	Patient complained of headache and pain at cardiac region. No medicine.		
	2.30 P.M. 5j	94 intermit.		30
	6 30 " 5j	80 "		26
November 17.	9 A.M. 5j	80 regular	1017	29
	7 P.M. 5j	72 regular		27

Under this treatment, all the maniacal symptoms present had yielded. The treatment was kept up with half-drachm doses twice or thrice a day for two or three weeks to the entire and permanent relief of all cerebral excitement.

This and similar experiments led me to fix my average dose of the tincture at half a drachm, although I often for the first few days of treatment give drachm doses. I have never given larger doses. I have always given it simply in water; and I have not complicated my observations by the admixture of any other drug.* The tincture has been supplied to me by Messrs. Taylor, of Vere Street, Oxford Street.

b. *Forms of Insanity in which Digitalis has been employed.* I have, during the last year and a half, exhibited digitalis in the form of the tincture in twenty to thirty cases of maniacal excitement, recent and chronic, with varying results.

First, as to the failures. In three recent cases of mania depending on uterine excitement, two in young girls and one at the change of life, I steadily pressed the use of the drug until its poisonous effects, as shown in sickness and vomiting and intermittent pulse, were produced. The dose given was, in each case, half a drachm of the tincture three times a day. The result was simply that the patients when very sick were quiet, and that so soon as the nausea passed off the excitement returned. Again, in two severe cases of recurrent mania, I only produced sickness and depression of the pulse and no amendment of the mental symptoms followed this physiological action of the remedy.

On the other hand, my success with this drug in cases of general paresis, in the second stage, that of mental alienation with symptoms of maniacal excitement (and in which so often in private practice aid is sought pending the patient's removal to an asylum), leads me to regard its action in controlling cerebral excitement as quite specific. I have, of course, had my share at Hayward's Heath of these troublesome cases—and how noisy and veering they are every asylum physician knows to his cost—and they have ceased to give any trouble under the calming action of digitalis.

It is with these cases of general paresis, in the stage of mental alienation with maniacal excitement, that the assaults and injuries in asylums (which from time to time unfortunately occur) arise. There is such a reckless violence present, on which no moral or physical obstacles make the slightest impression, and this stage lasts so many weeks, if not months, that any remedy at all capable of controlling this state of things deserves a most careful trial. And such a remedy I believe we possess in digitalis, continued steadily day by day, while the tendency to excitement lasts, in half-drachm doses two or three times a day, or oftener.

It acts in every case of the kind in which I have given it as a specific, calming the excitement, and enabling the patient to pass without wear or irritation through this stage of the malady. Its action has been to steady the pulse, and thus apparently to supply the brain better with blood, and so to obviate the tendency then existing to effusion of serum, consequent on the inflammatory process going on, as we believe, in this stage of the disease in the arachnoid and pia mater. The researches of Wedl, quoted by Dr. Salomon* in his able paper on general paresis, are conclusive as to the inflammatory process present in this stage of the disease.

In such circumstances the only visible result is mental quiet, and the action of the drug appears to be that of a cerebro-spinal narcotic. The functions of the stomach and bowels are not affected by its use; the appetite rather seems to improve. The pulse often remains unaffected for weeks under the use of half-drachm doses, and the only result is the specific action on the cerebral excitement. I have often found one day's intermission of the medicine bring on all previous symptoms of excitement. I have prepared a detailed history of six cases of general paresis which I have thus successfully treated. The limits of my present communication necessarily prevent my inflicting their detail on you; moreover, every member of this Association has such opportunity of testing the results of my experience, that it is sufficient for my present purpose thus generally to indicate the forms of insanity in which I advise the use of this drug.

I have also continued for many weeks with benefit to administer half-drachm doses of the tincture of digitalis in cases of chronic mania, with noisy and destructive habits. I have at this moment two such cases under treatment. In one the irritation is evidently depending on impending paralysis.

There is a third form of insanity—mania with phthisis

* K. Wedl has in every case of general paresis demonstrated an hypertrophy of connective tissue in the small arteries and veins in the pia mater and cortical portion of the brain. On the outer wall of the vessel is a hyaline, imperfect layer of connective tissue studded with partly scattered, partly grouped oblong or round nuclei. This layer of connective tissue, projecting over a greater or less extent of the vessel, undergoes, with the nuclei occurring in it, in the direction from without inwards (from the periphery of the vessel towards its centre) a fibrillar change. The veins of capillary structure cannot resist the pressure, but are also drawn into this process, and are completely obliterated, and changed to corresponding bundles of fibres. The abnormal layer of connective tissue not infrequently serves as a seat of deposit for finely divided olein and amorphous calcareous salts, while in other places calcareous depositions take place in the inner elastic and muscular layer. The small and slender cerebral vessels thus calcified can, on section, be observed in the cortical substance as a number of needle points. Wedl endeavours to explain the adhesion of the superficial layer of the cortical substance to the pia mater by the penetration of the grouped nuclei in the adventitious membrane of the pia mater to a certain depth into the cortical substance. When the pia mater is separated, a layer of the softened cortical substance often accompanies it, corresponding to the depth to which the nuclei have penetrated. The complete obliteration of the calibre of the small veins caused by this degenerative process, demonstrated by Wedl, must give rise to a considerable obstruction to the circulation, both in the pia mater, and subsequently in the cortical substance of the brain, with consequent ischaemia; to stasis, pressure, irritation, and inflammation. All this produces a progressive aggravation of the cerebral symptoms, and disturbs the nutrition of the cortical substance. (Dr. Ernest Salomon, "On the Pathological Elements of General Paresis,"—*Journal of Mental Science*, October 1862.)

* In many cases of chronic mania, with sleepless noisy nights, I have found the following sedative mixture of value.

R. Ferri anaesthetici, tinctura cannabis Indicae, liquoris opii Sijssij, ethera chloridi, stigmaturum murens trosc.
Dose.—Half a drachm, repeated at intervals of three hours.

(not unfrequent in private practice also), in which I have found the occasional use of the tincture of digitalis of great benefit. This form of mania has been so exhaustively treated by Dr. Clouston in the *Journal of Mental Science* for April 1863, that this reference to its treatment will for my present purpose suffice. Time, moreover, warns me to bring my present remarks to an end.

[Since preparing this communication for the annual meeting of the Association of Medical Officers of Asylums and Hospitals for the Insane, my attention has been directed to a paper read at the thirteenth annual meeting of the British Medical Association in 1862, by Dr. Handfield Jones, and published in the *BRITISH MEDICAL JOURNAL*, August 23rd, 1862, "Some Remarks upon Remedies and on the Study of their Actions." I find some interesting remarks there on the several actions of digitalis in disease, worthy of note by any one interested in the use of this medicine. I believe there is also a paper by Dr. Christison on the action of digitalis, in some former number of the *Edinburgh Monthly Journal*. I have unfortunately not yet had an opportunity of consulting it.]

CASE OF PHTHISIS COMPLICATED WITH PNEUMOTHORAX AND ABSCESS, DESTROYING THE COSTAL CARTILAGES.

By W. G. GIMSON, M.D., Witham, Essex.

Phthisis; Pneumothorax on Right Side; Cavity in Right Lung, communicating with Right Pleura, and also with an Abscess formed to the Left of the Sternum, which burst, destroying the Cartilages and Portions of the Osseous Structure of the Second, Third, and Fourth Ribs. J. B., aged 23, in February 1861 laboured under an attack of typhoid fever complicated with pneumonia of both lungs. From this he partially recovered; the pneumonic symptoms were relieved; but he remained in a weak cachectic state, with signs of tubercular deposits in the apices of both lungs.

In August of the same year, after several pleuritic attacks upon the right side, with some pneumonia, the tubercles began to soften; and he expectorated a considerable quantity of thick purulent matter. Under good nourishment and medicines, his health improved, and he regained to a great extent his ordinary appearance as to flesh, etc.; still he gained little strength, and suffered from frequent attacks of pleurisy on the right side.

In the early part of January 1862, while labouring under an attack of pain in the right side, during the act of coughing, his breathing became very difficult; and, upon examination, signs of pneumothorax of the right pleura presented themselves. In the course of a day or two, a circumscribed red spot (of about the size of a shilling) appeared on the left side of the sternum, and rather to the upper edge of the fourth costal cartilage; this, however, gradually disappeared, and was succeeded by considerable swelling immediately over the costal cartilage of the third rib, and about an inch and a half to the left of the sternum. In the centre of this swelling was a red spot of about the size of a florin, with fluctuation beneath, a considerable amount of pulsation, and emphysema of the surrounding subcutaneous areolar tissue. Under the application of poultices, the skin gradually gave way. The tumour burst; and a quantity of dark, grumous, offensive pus, mingled with bubbles of air, was discharged with some relief to the dyspnoea, and followed by the cessation of violent vomiting, which had been of frequent occurrence since the appearance of the spot over the fourth costal cartilage. There were signs of lateral tubercle in the left lung, but no active mischief in that organ.

The patient continued in a state of hectic, and gradually sank exhausted on June 19th, 1862.

POST MORTEM EXAMINATION. The body was much emaciated. On the left side of the sternum there was a hole in the integument exposing the costal cartilage of the second rib. A probe introduced passed but a very short distance in a direction from the sternum; but, upon passing the probe rather beneath the left side of the sternum, it readily entered a sinus leading towards the right side of that bone.

On making an incision along the sternum, and reflecting the integument on each side, the muscles on the right side were hardly perceptible, partly owing to their wasted condition, and partly to loss of colour in the muscular fibre. The muscles on the left side, although wasted, were of good colour. Beneath and immediately around the opening in the integument above mentioned, there was an abscess involving the costal cartilages of the second, third, and fourth ribs. The cartilage of the second rib was only slightly implicated; but the portion of rib immediate to it was denuded of periosteum and carious to the extent of an inch and a half to two inches. The cartilage of the third rib was much destroyed, and a considerable portion of the rib was entirely gone. The entire cartilage of the fourth rib and about two inches of the osseous structure were destroyed and gone. The sternum in the vicinity of each of the above named cartilages was more or less implicated.

The abscess, apparently about three inches laterally by four inches longitudinally, contained a quantity of offensive, dark coloured, purulent matter; and, upon examination, was found to be external to the pleura of the left lung, the wall being formed by a dense unyielding tissue, save at a part about the junction of the third costal cartilage with the sternum, where the probe passed readily in a direction upwards, beneath and towards the right side of the sternum.

On reflecting the sternum carefully, it was found that a thin flap of the right lung was very firmly adherent to its posterior surface. The portion of lung was riddled with softened tubercle, and the probe was found to have passed along a sinus leading to a cavity which communicated with the right pleura.

The upper portion (about two-thirds) of the right lung was destroyed by softened tubercle, adherent to the costal pleura, and riddled with cavities; while the lower portion was collapsed and lying close to the spine. The pleura, on its pneumonic and costal surfaces, was covered with a thick, yellowish brown, purulent matter. The upper part of the left lung was thickly studded with tubercle in a latent state.

DEATH FROM CHLOROFORM. At the London Hospital on Saturday last, an inquest was held on John Savage, aged 41 years, a mariner, who died from inhalation of chloroform. The deceased had a compound fracture of the right arm, not connected with the joint; and the joint was to be excised. Two drachms of chloroform were administered to Savage, who took it very well at first; then his pulse became feeble. Galvanism and other remedies were applied for half an hour, but with a negative result, and deceased died. Mr. Spence said that the *post mortem* examination showed the heart was fatty and weak in structure, but no examination during life would have discovered that fact. The jury returned a verdict that the deceased died from the administration of chloroform, and that it was properly administered.

EUROPEAN TROOPS IN BURMAH. It has been decided that in future, European troops may be safely sent to Rangoon without any previous sojourn in India.

ALLEGED UNHEALTHINESS OF MADRAS. The mortality returns show, that for some reason or other, Madras is yearly becoming a more unhealthy residence.

Transactions of Branches.

EAST ANGLIAN BRANCH.

REMARKS ON TRAUMATIC GANGRENE.

By WILLIAM CADGE, Esq., Surgeon to the Norfolk and Norwich Hospital, Norwich.

[Read at Yarmouth, June 26th, 1863.]

In the communication I am about to make to the Association it is by no means intended to enter fully on the subject of Traumatic Gangrene, but simply to ventilate the question of amputation in mortification of a limb from injury.

The subject is perhaps more particularly interesting to the hospital surgeon; but as it may, and occasionally does, happen in private practice, that a simple or compound fracture, a gunshot or other wound, or even a far less injury in certain states of the constitution, may end in loss of vitality of the limb, it is desirable to ascertain what is, and what should be, the course adopted in such an event.

The teaching of modern surgery on this important subject is by no means clear and definite; but I think I shall not be far from the truth in asserting that the present rule of practice is to remove the limb as soon as mortification has clearly manifested itself.

Thus, Mr. Erichsen says, and his work is one of the last and best on systematic surgery: "In traumatic gangrene, amputation should be performed as soon as the gangrene has manifested itself, without waiting for the line of demarcation."

In like manner, Brodie says: "In cases of mortification of a limb from local injury you may amputate, but the operation must be done at once though the mortification be still spreading." Mr. Guthrie also says: "The proper practice is to amputate as soon as the extent of the injury can be ascertained"; he enumerates, however, several exceptions to this rule.

In the article on traumatic gangrene in Holmes's *System of Surgery*, it is said: "The indications for immediate amputation are so clear and generally acknowledged, that he who shrinks from the responsibility of the operation stands exposed to just reproof."

Lawrence also, and most others, give similar advice; but to Baron Larrey, more than to any other surgeon, the present practice is more particularly due. Before his time it was the custom in this, as in every other form of mortification, not to amputate until the cessation of the gangrene; but he was led by vast experience during the wars of Napoleon, to adopt and recommend the present plan; and here I desire to say, that my remarks apply to civil and not to military surgery, for I can well understand that very different treatment may be required in the hurry, confusion, and crowd of a field hospital, from that which should obtain in a civil hospital where every care and good nursing may be had.

It appears, then, from what I have quoted, that in mortification of a limb from injury, it is plainly and peremptorily urged that immediate amputation should be the rule.

Before, however, proceeding further, I wish to draw attention to that form of traumatic gangrene called "spreading" gangrene.

In simple traumatic gangrene, the mortification may be expected to be arrested at the point of injury, but in spreading gangrene, the loss of vitality oversteps this boundary, extends rapidly up the limb, and usually in thirty-six hours reaches the trunk, or proves fatal. In the former, the injury itself is the principal cause; in the latter, the injury may be slight, but the constitution of the patient is chiefly at fault; the blood or bloodvessels are probably so disordered and unhealthy as to pre-

dispose to the spread of gangrene; but how are we to know when the spreading form of mortification has really attacked a part? what are the appearances of the limb affected by it?

Erichsen thus describes it: "By the injured limb becoming cold, being often greatly swollen and readily pitting, afterwards by much tension and oedema of the subcutaneous cellular tissue, causing the part to assume a brawny hardness; there is sometimes crackling from the generation of gas. The skin may at first be of a dull tallowy-white or bluish colour, mottled or marbled by bluish-green streaks in the course of the veins, but it speedily assumes a yellowish hue, bullæ containing dark fluid often rising upon it. In other cases, the integument at first assumes a red or reddish-purple appearance, as if erysipelatous, but very speedily becomes of a bluish-green or dark purple colour, soft, and horribly offensive."

"It assumes the colour of a tallow candle, and soon the appearance of mottled soap," is Guthrie's description.

When this state of things has really commenced in the foot, we are urged, if we are to have a chance of saving the patient's life, to amputate immediately, while the mortification is extending, and to select a spot well above all suspicious appearance, and therefore well above the seat of injury.

But I affirm, and I speak from very considerable experience, that the description I have given above of the "spreading" form, is exactly suited to cases of common traumatic gangrene, in which, in nineteen instances out of twenty, an arrest will take place at the seat of injury; there is no difference in appearance between the two forms, as the cases I shall presently relate will shew; and therefore, the only means of knowing when we have the more rare and fatal form to treat, is when we see it extending above the injury, and when the vital power rapidly fails; but then, according to the rule of practice now in vogue, we should not allow matters to get to this; the limb should be removed the moment the morbid appearances present themselves, and before we have any means of knowing which form we have to deal with; whether the simple form, which will stop at the point of injury, or below it, or whether that fatal spreading form which, although it be excited by the injury, is really a constitutional disease or gangrene from internal causes, and which, therefore, spreads independently of the injury.

This I conceive to be a most important distinction, and one not easy to make; but little doubt exists that limbs have been removed high above the seat of injury, high above the point to which the mortification would have extended, and therefore high above the point at which the amputation might have been done, if a little delay were permitted.

The object I have in view is to oppose the rule of practice now so generally inculcated; to amputate a limb merely because gangrene has set in, is to ignore other and very important considerations, especially the strength and precise condition of the patient; it adds another and a very grievous shock to a system already and very recently enfeebled by the accident, and probably by loss of blood; at a time when the system is in a state of great excitement attending on the occurrence, and spreading of the gangrene; and lastly, the operation is done at a part, to the right selection of which we have no means to guide us; we may cut in doomed parts, or remove more of the limb than is required; and I may add that the results of the practice are most disastrous and fatal.

The plan of treatment which I would advocate, and have of late adopted, is to wait until the cessation of the gangrene; to support the patient's strength until this occurs; to watch the process of separation, and to seize the most favourable moment, and amputate either close above the line of demarcation, or through the gram-

lations. The reasons which have guided me will be best stated by recounting briefly the few cases which have occurred in my practice within the last year or two.

First, however, let me mention one instance in which I adopted the customary proceeding.

CASE I. A few years ago, a strong healthy middle-aged man, was admitted into the Norfolk and Norwich Hospital, with a simple fracture of the lower third of the femur; there was considerable ecchymosis and extravasation above and below the fracture. The house-surgeon applied the long splint in the usual manner. Two days after, the limb lost its warmth, and the toes became blue and cold; mortification of the part was evident; the patient was in a state of active febrile excitement; there was no line of demarcation, and the mortification was extending up the leg. The thigh was immediately amputated high up; there was no real reaction; no attempt at healing of the stump, and the man died apparently of shock and exhaustion in a few days. Both popliteal artery and vein were found divided by the edge of the broken bone. It is probable that it was not in the power of surgery to save this man, but I have little doubt now, that it would have been better to play a waiting game, in the hope of a more favourable opportunity for operating.

CASE II. The next case illustrates well the mode of treatment I advocate. A middle-aged man was wounded in the harvest-field; the point of a scythe entered the popliteal space; brisk hæmorrhage took place, but it stopped before the surgeon's arrival. The little wound was closed and healed soundly, but about a week after the accident, the foot turned blue and cold; mortification extended above the ankle, and when I was called, the whole calf of the leg was dark red in colour; there was considerable swelling and emphysematous crackling; there was no distinct line of demarcation. There could be no doubt that the popliteal artery had been wounded; the popliteal space was filled by a clot, but there was no pulsation; no aneurism.

The rule of surgery, as I have before said, quoting from Erichsen, was "in mortification of a limb following ligation of an artery, amputation should be had recourse to at once, as the only chance of saving life"; and the same rule applies, I presume, to the occlusion of the vessel from wound, but I preferred to wait; it could not be ascertained how high the gangrene would extend, and if amputation were done at once, it must be done in the thigh above or on a level with the wound in the vessel. Incisions were made in the calf, and pus and air escaped freely; this seemed to prevent any considerable spread of gangrene; it stopped, and a line of demarcation formed about the middle of the leg. The point of election had next to be decided, and surgical authority demanded that it should be in the lower part of the thigh; but it seemed to me that, if nature could preserve the vitality of the limb to the middle of the leg, that a stump below the knee ought readily to heal, and so it proved; a circular amputation was done close below the knee; no tourniquet was needed, for we knew that the main artery was wounded; the lower part of the clot in the ham even came into view at the operation, but the stump healed kindly, and this labouring man had the inestimable advantage of having preserved the knee-joint, which forms the most useful of all stumps.

Another case I have to record, which, although less fortunate in its result, has still some points of vivid interest.

CASE III. A young man was brought to the hospital from a considerable distance, with a gunshot wound in the lower part of the thigh; the larger part of the inner hamstring was carried away. The wound was black with gunpowder, dry, and large enough to admit three or four fingers in breadth. There had been considerable hæmorrhage; and the patient was pale, collapsed, and almost pulseless on admission. It was not ascertained

that the popliteal vessels had been injured; and the limb was placed in an easy position, and enveloped in flannel. In two days, the foot was in a state of mortification; and the whole leg was discoloured up to the knee, where a faint red line seemed to limit the gangrene. The whole thigh up to the groin was swelled and distended with gas; it was resonant on percussion, and emphysematous crackling was felt everywhere; but it was natural in colour and temperature.

Such being the state of the limb, what were the indications for treatment? It seemed to me that this emphysema of the thigh could not be due either to commencing gangrene or to sloughing cellular tissue; for the skin in either case would not have preserved its ordinary colour and appearance. Most probably the gas was the product of decomposition in the dead parts below the knee, and had forced its way upwards along the cellular interstices of the limb. The man's depressed condition was such that an amputation would, in my opinion, inevitably have proved fatal. I, therefore, decided to wait; but I did two things which seemed to be of service. I made large and deep cuts into the leg in various parts, and notably a circular one close to the living part, thus affording free escape for all noxious gas. I also made an incision of about an inch at the upper part of the thigh, from which air bubbled freely, and could be so readily pressed out as sensibly to diminish the size of the limb. The patient was liberally fed; the mortification did not extend; the line of separation close to the knee became more distinct. There was still air in the thigh; but no other mischief manifested itself.

At the end of a week, he had improved in strength. To remove the offensive smell of decomposition, I clipped through the mortified soft parts close below the knee, sawed through the tibia and fibula high up, and took away the leg, to the great relief of the patient.

At the end of a fortnight, his general condition was quite as good or better; the separation of the dead parts was nearly complete; the remaining portions of tibia and fibula had come away at the joint; the lower end of the femur projected; and a large mass of healthy granulations surrounded the lower part of the thigh; the skin having considerably retracted.

At the end of three weeks, the patient having begun to be hectic, and the discharge being profuse, I amputated through the granulations, without touching the skin, and was able to fashion a very good-looking stump about the middle of the thigh.

For some days he went on well, when fever set in, attended by daily rigors and profuse sweating—symptoms, apparently, of a pyæmic nature. He had acute pain of the opposite hip, but no swelling. He became gradually weaker; lost the power of taking food; the abdomen became distended; and he died ten days after the amputation.

This case shows that the presence of a mortified limb does not interfere injuriously with the improvement in the patient's health; for he steadily gained strength during the process of separation. At the outset of the gangrene his symptoms were very grave, consisting of fever and exhaustion; and I feel sure that the additional shock of amputation would have proved fatal. I incline to the opinion that there was too much delay, that it would have been better to have removed the limb a week earlier; but this shows what a choice of time the delay afforded. The case also shows that in a limb, part of which is in a state of mortification, the healthy part may be distended with noxious gas and yet no mischief may follow.

The next case, which I will relate as briefly as possible, demonstrates the value of delay, notwithstanding that the delay allowed of the occurrence of an accident which well-nigh proved fatal.

CASE IV. A farm-labourer, aged 54, was brought to

the hospital, having sustained a simple fracture of tibia and fibula in the lower third of the leg. A cart-wheel had passed over the limb while the knee was bent; and besides the fracture of the leg, there was a good deal of bruise of the inner and lower part of the thigh, and a large soft swelling of extravasated blood there. He had travelled some distance, and was excessively faint and collapsed on admission.

In two days, it was evident that the foot had sunk into mortification, and there was no line of separation. I was urged to amputate the thigh at once, but declined, for these reasons: I could not ascertain which vessel was injured, whether the femoral or the tibials opposite the fracture, nor how far the gangrene would extend; possibly by waiting the knee could be saved; whereas to amputate then, in the faint and exhausted condition of the patient, would, almost to a certainty, have proved fatal. Moreover, any point of amputation would find the parts in a very unfit state for healing, so great was the extravasation. The limb was laid on its outer side supported by splints and covered in flannel; and the patient was fed as well and fully as he could bear.

For some days, little alteration manifested itself in the limb. The foot was cold and purple; large bullæ formed over the seat of fracture; but the knee was warm and sensitive; and so also was the leg to about its middle. The man looked pale and feeble, and there was some low delirium at times; but he took food and stimulants freely. His pulse averaged about 100; his tongue was dry and white. I made free and deep cuts into the leg where the gangrene was obvious, and let out foul air and dark blood.

In about fourteen days, a line of demarcation formed at the upper part of the leg; the dead tissues began to be offensive; and I, therefore, removed the limb opposite the fracture of tibia, clipping through the fibula on the same level. By taking away the mortified parts as soon as possible, and as near the line of demarcation as is practicable, great good is done. All the gas produced by putrefaction escapes, instead of forcing itself along the cellular tissue into the sound part of the limb, as we have seen it, until the entire limb is tympanitic; all bloody and effused fluid readily escapes, and the living and adjacent tissues are thereby relieved; an offensive smell is removed; and the patient experiences great comfort.

The stump thus left was enveloped in a large charcoal poultice. At every change of dressing, a considerable quantity of bloody fluid was found in the poultice, shewing how important it is to secure an outlet free and always ready.

By the nineteenth day, the stump had become nearly clean. Sloughs had been daily clipped away, and red granulations were everywhere visible; the bones projected three or four inches; but the skin was so left that a good stump could easily have been made below the knee by amputating through the granulations. This, however, was prevented by the occurrence of secondary hæmorrhage from the thigh. The quagmire of blood which was caused by the passage of the wheel over the lower and inner part of the thigh did not become absorbed. On the contrary, it bulged more and more, and became hot, red, and inflamed, but did not pulsate.

Fourteen days after the accident, I punctured it, and let out about half a pint of semifluid, black blood, and a little pus. It went on discharging a little bloody fluid for some days, and attracting but little notice, until the twenty-first day after the accident, when secondary hæmorrhage took place; it was sudden, brisk, and arterial, but ceased before the house-surgeon saw him. This was repeated four or five times in two or three days; and it became clear that any further loss would cause death.

Forsoaking the leg where I was about to operate, I amputated the thigh above the wound. The pulse, which

hardly perceptible before the operation, rallied afterwards.

For a week or ten days, there seemed but little chance of his living. He was constantly wandering. Pulse 120 to 140; face and skin generally very pale and bloodless. Notwithstanding every precaution, bed-sores formed over the sacrum, hip, and outer surface of leg; and the face of the stump sloughed.

The one favourable point was that he was able to take nourishment freely; for some time, his daily allowance was sixteen ounces of wine, six ounces of brandy, six eggs, one pint of porter, one pint of beef-tea, and meat twice. Gradually he mended; the stump healed soundly; he left the hospital, and remains well; a grateful example of how a life may be preserved by assiduous nursing and good feeding. On examining the limb, the femoral artery was found to be wounded.

The last case I have to notice occurred a few weeks ago, and shows well the difficulty I have mentioned, of distinguishing between "spreading" and common traumatic gangrene.

CASE V. The patient was a farm-labourer, aged 46; of low organisation, thin, with a mottled red face, yellow conjunctive, and an appearance of premature age. He customarily ate but little meat, and was habitually temperate. He fell off the shafts of a waggon, and sustained a simple fracture of the tibia, and a compound of the fibula at the lower third. The wound was not large, and there was no great bruising of the soft parts. The limb was put on a swing splint.

On the third day, the skin to a considerable extent around the fracture was in a state of slough. The edges of the wound were sloughy and everted.

On the fourth day, the whole foot was blue, cold, and covered with blebs. Above the fracture, the leg was swelled, of a dark red or mahogany colour, and streaked with the bluish tint of the superficial veins. It was tympanitic up to the knee; and emphysematous crackling was everywhere felt. Above the knee, the inner and outer borders of the thigh had the same appearance for some distance.

Now, this description very nearly resembles that which is given of "spreading" gangrene. The part of the limb below the injury was already dead; that above was in the state I have mentioned, and might be supposed to be about to sink into the same condition, and to extend rapidly up to the trunk. I feel certain that I have seen amputation done high up in such cases as this repeatedly under the impression that, without it, the patient would die in thirty-six hours, or less.

To have operated at this time, I must have gone above the middle of the thigh, in order to avoid parts having a suspicious appearance; it would have found the man in a most unfavourable condition for such an operation. He was in a state of fever and great feebleness; with a quick, weak pulse, parched tongue, frequent hicough, and constant vomiting, with high coloured urine and a yellow skin. In my opinion, he would not have lived twenty-four hours. But, in reality, the leg above the fracture was not mortified in its entirety; the subcutaneous cellular tissue was in a state of slough, and the skin was about to follow. I made several free incisions in various parts, and let out a quantity of foul air and thin pus; covered the leg with a warm linseed-poultice; and attended to the state of his health. No further gangrene took place.

In a few days, sloughs projected from the wounds and were removed; the swelling subsided; pus of a healthy character was discharged; the hicough and sickness abated; and he could take food.

On the sixteenth day after the accident, I amputated close below the knee joint. He was still very weak; but his system was quiet, and he seemed better than ever the day following the operation.

On the second day, there was a smart arterial hæmor-

rhage. The stump was opened and a vessel tied; but the pain and loss of blood did great harm. In the evening, I found him low, sweating, and excited; pulse 120.

After this he had rigors day after day, the certain forerunner of pyæmia. He was able to take but little food; the abdomen became distended; bed-sores formed, and a large abscess around the hip. He died about a fortnight after the amputation.

I will not detain the meeting by any more remarks on these or similar cases. Permit me, in conclusion, briefly to offer some propositions on the subject.

1. In traumatic gangrene of a limb, it is safer (in civil practice) to wait for the cessation of the mortification before amputating.

2. Death seldom occurs during the spreading of the gangrene.

3. The patient will, in all probability, be in a more favourable condition for an operation after the arrest of mortification than at its commencement or during its extension.

4. Amputation should be done through the granulations at the line of demarcation, or immediately above it.

5. Free incisions should be made into the mortified parts during the extension of the gangrene; and as soon as the line of demarcation is formed, the gangrenous part of the limb should be taken away close to the living tissues.

6. When the gangrene has ceased the time chosen for amputation must depend on the condition of the patient.

Lastly. That in the so-called "spreading" or constitutional form of traumatic gangrene it is especially incumbent on the surgeon to wait for the arrest of the mortification, a practice which has the sanction of such surgeons as Mr. Fergusson and Mr. Syme.

Reviews and Notices.

ON THE INFLUENCE OF THE WEATHER UPON DISEASE AND MORTALITY. By R. E. SCORESBY-JACKSON, M.D., F.R.S.E., etc. With Coloured Illustrations. Pp. 54. Edinburgh: 1863.

WE are much indebted to the able author of *Medical Climatology*, for the further researches he has been making on a kindred subject. In his introduction to the present work, while noticing the great attention now paid to the influence of change of climate upon the cure of special diseases, he truly says that change of climate often means simply change of weather: at the same time, the weather-statistics hitherto published have been few, and the literature on the subject is meagre. He has, therefore, endeavoured to discover in what way the weather, its persistent condition as observed in certain localities, viz., in Scotland, and especially in its eight larger towns, whose climatic state he has chosen as an example of that of the country in general, its variations, etc., may be found to affect the health, the sick-rate, and the death-rate (these two not being always co-existent) of the inhabitants. Notwithstanding some objections that have been raised, he considers that the climatic conditions of the larger towns afford a fair average for all Scotland, as it is in them that "the mass of disease and the multiplied mortality are met with" more particularly.

No subject has excited more attention than weather in all ages, and most so among the uneducated; none has given rise more often to "wise saws and modern

instances"; and yet on no subject have opinions been more conflicting, and even the ordinary descriptive terms have given rise to totally different ideas in men's minds. As our author says, the terms bitter, raw cold, bleak, bracing, etc., may be "used by different persons with reference to the weather of one and the same place and point of time." It is, then, a matter of the greatest consequence to obtain accurate data, on which may be founded scientific laws: a vast mass of meteorological facts are now becoming accessible to us, from the great number of observers that are at work in different parts of the world; but the science of Climate, or Weather, in its relations to health, is still in its infancy. This work constitutes, however, a valuable contribution; and may be trusted all the more, because the author's aim has been to divest himself of all foregone theory, and to make the facts which he has collated speak for themselves.

The theories which may be deduced from these facts have a very sensible bearing upon the question, whither should the sufferers from particular diseases resort for recovery? In estimating the value of health-resorts, we must depend less upon a comparison of the meteorological data of the several places, than upon the relations subsisting between those data and the prevalent diseases, the (sick and) death-rates, of one and the same locality. To compare different places, much more than mere meteorological analogy is requisite to discover the comparative sick-and-death-rate; but still it is of the greatest consequence to ascertain whether the atmosphere a patient lives in is likely to prove a "foe or an ally in the treatment of his malady." It will be long before correct theories of climate will be elicited; but these facts here collected speak for themselves, "sometimes making positive, sometimes negative assertions, often enough hovering between the two, leaving us as much in doubt as before, but with a stimulus to deeper research into the influence of those numerous external agencies, which are under the immediate control of the Great First Cause of all."

Our author does not ignore the influences of the various hygienic conditions of supply of food, ventilation, etc., nor of geological formation upon localities; but his efforts on this occasion are restricted to the collating the meteorological conditions of the several localities. The chief sources from which he has drawn out his facts with so much labour, are the Returns from the Stations of the Meteorological Society of Scotland, and the Returns of the Registrar-General; his investigations extending over six years, from 1857 to 1862, inclusive. From these sources, mainly, we find a series of tables constructed in a most elaborate manner, and some most valuable and suggestive illustrative diagrams. As may be expected, the results of his inquiries on some points harmonise with those of several observers in other countries, while on other points they are diametrically opposed to them. It is impossible for us to enumerate many of his conclusions: in fact, he regards them not so much as proving anything, as pointing to certain general laws, as, viz., that "during the cold months of the year, the relationship between the height of the barometer and the death-rate from zymotic diseases is inverse, whilst during the warm months it is direct," etc. Thus he says (p. 22), tables "point to this, that for three-quarters of the year the relationship of monthly range of tempera-

ture and the death-rate from all causes is inverse—the greater the range, the lower the mortality; but that during the months of July, August, and September, the relationship is direct—the greater the range, the greater the mortality.” Again, he says, “if the foregoing tables are to be trusted, it would seem” (p. 48) “that the north, the north-east, and east winds decidedly tend to increase the death-rate from bronchitis.” At p. 51, a table “corroborates the suggestion . . . that a low winter temperature increases the mortality from phthisis, but only to a remarkable extent when the mean temperature is very low, and continuously so; and that a high summer temperature does not increase the fatality of phthisis.” At p. 54, the table “suggests a direct relationship between the rain-fall and the death-rate from all causes in winter and spring, but an inverse relationship in summer and autumn—a suggestion which the previous results tend to support.”

On some points our author seems to have more confidence that he has established somewhat more definite conclusions; as at p. 20, “mean temperature and mortality from all causes have an inverse relationship below 50° (Fahr.), a direct relationship above 50°”; “aggravating influence of continued cold”; and “of a continued high temperature”; the greater mortality with a low reading of the barometer, and greater mortality with greater range of barometer. Again, some of his conclusions apparently conflict with one another; as when, at p. 35, he speaks of the greater mortality in proportion to the amount of rain-fall during the whole year, while his tables “tend to corroborate” (p. 36) “a previous suggestion that *dry cold* is more fatal than humid cold.” Again, “following the rain-fall as our guide to the hygrometric condition of the atmosphere, we conclude that a dry atmosphere promotes mortality; if we refer the humidity present in the atmosphere to the standard calculated by Mr. Glaisher, we are forced to an opposite opinion.” It seems that opposite causes may produce a similar effect, as when a great force of wind (p. 37) kills by exhausting the weak and by the casualties it occasions; a small force of wind kills by the diseases, zymotic and others, produced by a stagnant and damp atmosphere. Our author has his tables constructed to show, 1. The Influence of Weather upon Mortality from All Causes. 2. Its Influence, etc., from Special Causes.

In addition to several tables calculated to throw light upon the effects of the various conditions, as temperature, force of wind, humidity, etc., upon the general mortality, and also upon the sickness and mortality from the principal groups of diseases, the author has appended several most valuable diagrams illustrative of the several meteorological conditions, and their effects upon the general mortality. Those who have had experience in collecting, comparing, and analysing meteorological data, will agree with us in our opinion that a vast amount of labour must have been expended by the author. We think that the profession is much indebted to him for the facts he has brought before us, and the conclusions bearing upon public health which he seems to have already established or confirmed; but still more for the impetus his researches must give to the accurate and scientific investigation into the action of the weather upon the human system, by numbers of competent observers in different parts of the world.

It is by means of such investigations, mainly, that we may look for a solution of the great medical problem of our day—the prevention of disease.

British Medical Journal.

SATURDAY, OCTOBER 3RD, 1863.

PSEUDO-CURES FOR A SOCIAL EVIL.

AN attempt has been made of late to introduce into this country the system generally prevailing on the continent, of governmental supervision of prostitution. The chief object proposed to be thereby gained is, the restriction and diminution of the spread of syphilitic diseases. We are told, that at no time in the history of the nation have these diseases been so prevalent and widely spread through all ranks of society as they are at this present moment, and that they are sapping the very constitution of the people. To believe all that has been seriously said and written of late on this subject, we shall be forced to conclude that, in the course of another generation, Englishmen will have undergone a thorough process of physical degeneration, and, we suppose, if the same state of things be permitted to last, will in a few more generations be reduced to the lowest state of moral and physical decrepitude compatible with existence.

Now, we will not, on the present occasion, stop to inquire whether there be or be not any truth in the bold and reckless assertions made concerning this modern spread of an old-existing disease. This only we will say for the consideration of those reasonable persons who do not at once deliver up their judgment to the opinion of sentimentalists and demiscientifics: first, that the proof of the modern spread of these diseases has not been given, for the plainest of all reasons; viz., because it is most difficult, if not impossible, to compare the history of the syphilitic constitutional affections of the last generation with those of the present. Our knowledge of syphilitic disease of this day is quite another thing from the knowledge which men had of it not many years ago. Recent scientific investigations have enabled us to follow and trace out the disease, in directions in which a few years ago no one thought of looking for it. We might, indeed, say of many syphilitic affections what has been often popularly said of many other diseases of the day; viz., that they are quite modern inventions. We need hardly say, for example, that if diseases of the heart are so frequently met with now-a-days in our mortuary records, it is not that they are more frequent now than they were formerly; it is simply because modern diagnosis has revealed their existence in cases in which

they would have been overlooked under the ancient methods of diagnosis.

Most fairly may we assume that the same is true of these syphilitic diseases; viz., not that they are more widely spread now than formerly, but that our improved diagnosis enables us to trace them where the lesser knowledge of the disease and the more defective diagnosis of other days could not see them. Let any candid and unprejudiced mind look into our hospital museums, and search the history of this disease as recorded in our medical literature; and we will venture to say, that they will find evidence enough to satisfy them that the disease has been just as prevalent in the past as it is in the present. More than this, the evidence is unmistakable, that, at all events, the immediate and manifest effects of the disease are far milder in their form now than they were a generation ago. Our pathological museums and the historical records of the disease demonstrate this fact also to us.

Arguments, therefore, in favour of this governmental superintendence of prostitutes, drawn from a presumed extension of the physical evils resulting from it, in these latter days, are worthless.

But even if the evils referred to be not more prevalent now than they were in former times, this, of course, is no reason why we should not endeavour to scotch them, for Heaven knows they abound greatly enough. Let us then see whether a calm investigation of facts justifies us in supposing that this governmental superintending remedy is likely to prove a cure for the disease. It is, indeed, surprising to witness the ignorance and haste displayed by many writers in the public press—even by members of our own profession—on this subject. They start off with the assumption, that the benefits accruing to society from this licensing system are positive and undoubted. They accept the custom as perfect—as we islanders are often accustomed to accept continental practices, without examination—not taking the trouble to inquire whether it really fulfils the intentions of its promoters.

Now, we will say at once, that a long and careful examination of the subject has forcibly impressed the conclusion [upon us; that the governmental supervision of prostitution of foreign countries is completely inefficacious in preventing the wide and general spread of syphilitic diseases, and is most injurious to public morality.

As regards the moral side of the matter, we may remark, that even the most strenuous admirers of the "licensing system" admit, or at least do not deny, that there is something opposed or repulsive to morality in its adoption. It is plainly and positively an indirect patronage of prostitution by the Government. It makes of prostitution a state institution. It is a public declaration to the people, that, in the opinion of their rulers, prostitution is a

necessary part of the state properties, and must be provided for the people, like theatres, circuses, and other necessities of life—*panem et circenses*.

The moral evil, then, attending the licensing system is admitted as a transparent fact. Instead of curbing, it plainly encourages men and women in the commission of the sin that flesh is heir to. Those who practise the vice, find in the fact an argument to quiet their consciences: they argue that there can be no great sin in using those things which a paternal government provides for its people. And the woman, seeking to inscribe her name on the rolls of prostitution, may argue, and naturally enough, that the government, the supreme authority, would hardly have consented to be a party to assist her in entering into and carrying out a business which was really infamous.

The evil, then, of the system is admitted; but the evil is got over by the help of the doctrine of expediency. Expediency, it is argued, requires this sacrifice to immorality. We must do this evil for the sake of the good that comes out of it. Now, we are ready to admit that the utilitarian would have something to say in favour of his expedient system—though certainly not derived from any Christian inspiration—if he could demonstrate the benefits resulting in a physical sense to humanity from this immoral sacrifice. But we are ready to meet him even on this rather low ground, and, in fact, to deny that the licensing system, as practised on the continent, has been the means of reducing the physical evils—the spread of syphilitic diseases in those countries where it is adopted.

Those gentlemen and journalists who preach so loudly of the benefits of this system, and who exclaim against the squeamishness, etc., as they call it, of England, should have something distinct in their hands whereby to prove the benefits of this admittedly intrinsically immoral system; but they have, in truth, nothing to show beyond the general conclusions derived from their own idea of what ought to be or what is the result of the system. We look in vain for any proofs. Not only do we find no proofs, but the investigation which we have made into the subject has satisfied us that the system, in the respect of its being a controller of the spread of syphilitic diseases, is simply an enormous failure. For example, will any medical man, whose opinion is worth a straw on the subject, venture to assert that syphilitic diseases are more common in London than they are in Paris? There is, on the contrary, every reason to believe that the disease is just as common in Paris and other continental cities as it is in London. The hospitals, for example, in Paris, are filled with the disease. Syphilis is one of the most fertile subjects of medical literature; every Parisian journal is covered with quack advertisements of remedies for the cure of syphilitic diseases.

And what is there published of their experience by medical men in that city which would warrant the conclusion that Paris has more immunity than London from the affection? What said Parent Duchatelet himself on this very point? Why, he asserted that the system was useless, as carried out. "Clandestine prostitution," he writes, "that which is exercised in secret and unknown to the police, is of far greater importance than public prostitution." By the same means, he tells us, syphilitic diseases are spread, and the wise (!) measures of the administration rendered all but useless. And what was Parent Duchatelet's proposal for meeting the evil? Why, it was the multiplication of houses of prostitution! There were, he reckoned, 40,000 prostitutes in Paris, and of these only 4,000 inscribed on the police list.

Again, we are told that in India the authorities allow "each regiment to retain a certain number of women in the bazaar under the care of a woman, paid and made responsible; they are periodically inspected by the native hospital compounder." Nevertheless, it appears that syphilitic diseases rage in India. The same difficulty which Duchatelet could not meet, arises again here.

But what is it which the government is now called upon to do? Not, it appears, to license prostitutes; but to make such enactments as shall allow of the prostitutes being subjected to governmental supervision! The fact is, that the flippant writers of the day—the *Saturday Reviewers*, and some of those who echo their sentiments in the medical press—carefully avoid any distinct grappling with the subject. They do not tell us how that which they propose is practically to be carried out. The vilest prostitute in this country will, we venture to prophesy, never be subjected by the legislature to a treatment which would be a distinct violation of the Habeas Corpus Act. We shall never see a woman here taken up by the police on suspicion of being "diseased". But this is what these gentlemen demand, if they mean anything at all. They propose to throw the responsibility of providing what Miss Nightingale has so well referred to under the title of "War Office prostitutes" and "Admiralty prostitutes" for our soldiers and sailors of the country. They would insist that women with clean bills of health should be provided for our soldiers and sailors. But if for our soldiers and sailors, of course also for the whole country. In other words, they demand a governmental licensing of prostitution.

Such are the wild and impracticable views held by many writers in the press. Instead of wisely pointing out what may be done practically to reduce the sad effects of this dreadful scourge, they run off into the singing of praises of these Utopian follies.

We shall again recur to the subject, and will then point out the direction in which common sense tells

us that we may labour to some purpose in the attempt of reducing the spread of syphilitic diseases.

SPIRITUALISM AS A CAUSE OF INSANITY.

M. BURLET of Lyons, we learn from the *Medical Critic*, writes as follows on this subject:—

"Lyons, for its part, has already furnished a fine contingent of madmen from spiritualism. This city, where intellectual and other juggleries have always obtained a very happy success, has become, as it were, the stronghold of the sect. According to the avowal of a medium of Brotteux, the number of his adherents has within eighteen months been prodigiously augmented. 'Lyon' (says M. Figuier), 'with its heights, the ridge of the Croix-Rousse and the summits of the Fourbières, represents admirably what the spiritualists call a fatidical place.' Thus, it is not surprising that this city, which, at the end of the last century, built a temple to the great thaumaturgist Cagliostro, accepts readily the celestial words with which the spirits daily favour it. The partisans of spiritualistic ideas maintain, without proof, that their doctrine is incapable of producing mental alienation. Nay, one of them even pretends that spiritualism is a sure preservative against insanity.

"My object is to prove that spiritual practices act as a direct and efficient cause of insanity, and, consequently, that spiritualism ought to have a place among the causes of mental maladies. For several years, the Hospice of Antiquaille, Lyons, and other special establishments of the department of the Rhone have given refuge to a great number of unfortunates become mad from having sought for *mediumity*. From among these I derive my observations.

"These cases are not all that could be brought forward to prove the danger of spiritualism. Other special establishments of the department have received a good number of lunatics whose lunacy admitted of no other explanation than frequenting mediums. Dr. Carrier, within a short space of time, has treated, and seen recover, among his patients three females who had been rendered insane by spiritualism. I would reply here to a remark which might be made, that I have only met with spiritualistic lunatics among the more humble classes of society. This is true, because those patients received at Antiquaille, in the immense majority of cases, if not always, are the poor and indigent. But, independently of the names cited towards the close of this paper, I know, from trustworthy sources, that the gates of a well-known *maison de santé*, principally resorted to by the rich, have admitted within its walls victims of spiritualism from among the aristocracy. It may be said that, having regard to the number of those who study and practise intercourse with mediums, the number of lunatics is very restricted. This opinion is not well grounded; the lunatics from spiritualism are not solely those whom it is found necessary to confine in an asylum. There are many, and of these I know many, who, although they have not reached the same condition as those whose histories I have related, still give proofs daily of being more or less stricken in their intellectual faculties.

"In America, the country which gave birth to this delusion, and where it is in great favour, the number of cases of mental alienation occasioned by it is prodigious. An United States' journal declared in 1852, 'The majority of the mediums become haggard, idiots, mad, or stupid; and it is the same with many of their auditors. Not a week passes in which we do not hear that some of these unfortunates destroy themselves by suicide, or are removed to a lunatic asylum.'

"In France, individuals belonging to the upper classes of society also become victims to the destructive

power of spiritualism? An advocate of Paris, Victor Hennequin, who placed himself in relation with the soul of the earth by means of tables; and who, under the influence of spiritualism, wrote the opusculé entitled *Savons le Genre Humain*, died in a lunatic asylum, after having placed his wife, who became lunatic from the same cause, in another asylum. A distinguished man of science, Girard de Caudemberg, a civil engineer, died also lunatic in 1858, after having published a spiritualistic book, entitled *Le Monde Spirituel*. Among all classes of society spiritualism has found adepts and victims, and, unhappily, the prediction of the journal just quoted has been fully realised.

"The causes of the propagation of spiritualism are the same, modified by the manners and knowledge of our time, as those under the influence of which grew and were propagated in former ages many analogous intellectual epidemics, such as the demonology in Lombardy in 1504, in Lorraine in 1580, in the Jura in 1598, in Spain in 1630; and the vampirism in Poland, Hungary, and Moravia, from 1700 to 1740. Scarcely three years have elapsed (1859) since an epidemic of hysterodemonomania was observed at Morzine (Haute-Savoie), as reported in the *Gazette Médicale de Lyon*, by Dr. Arthaud.

"This love of the marvellous," says M. Fignier, 'is not peculiar to our epoch; it is of all times, and of every country, because it appertains to the human mind. By an instinctive and unjust distrust of his own powers, man is led to place above himself invisible powers, exercising themselves in an inaccessible sphere. This natural disposition has existed at every period of the history of humanity, and invested, according to the period, the place, and the manners, with different aspects, it has given birth to manifestations variable in their form, but at the bottom identical in principle.'

"If, in other parts of France, cases of insanity induced by the doctrines of the mediums, are as frequent as in the department I dwell in, no reason to the contrary existing, it seems to me that there can be no doubt that spiritualism should rank among the most fruitful causes of mental alienation."

THE PUFF PROFESSIONAL: NEW CURES.

WHENEVER we hear members of the profession exploring Jupiter Olympius, in the shape of the legislature, to give them relief from the "slings and arrows" of the multifarious quackeries which swarm around us, we are always inclined to ask: But how about the quackeries *within* the profession itself? How will you deal with them? How can you expect assistance from those elevated and powerful regions, when you present your petition with soiled fingers? Indeed, it is only very reasonable that we should have our professional house thoroughly well in order before we begin to cry out against the disorders created in it by the Dulcamaras outside.

And are there not irregularities rampant within the profession, as well as outside of it? Alas! we only too well know, all of us, that such is the fact. The word quackery, it must be remembered, is a very distensible and comprehensive term, embracing a large variety of untenable performances; and these performances may be honest, as well as dishonest; and they may be practised, as we have said, by the legitimate man, as well as by the irregular quack-

salve or bone-setting empiric. There are, in truth, breaches of professional etiquette which are the products of ignorance and of a defective condition of the reasoning powers, and these may be of the honest sort; and there are breaches, again, which are the products of tricking minds—the doings of persons who knowingly make profit of the infirmities and ignorance of the public.

ROYAL COLLEGE OF PHYSICIANS.

THE College possesses more riches than it is aware of. It possesses not only a most valuable and in some respects unique library, but it has also many first-rate paintings within its walls. The value of these paintings, and their authors' names, are in some cases unknown. Some of the pictures themselves also have been allowed to fall into a bad state. The College, therefore, has determined to appoint a Committee to examine its paintings; to find out their authors' names, if possible; and also to call in an expert from the Academy opposite, to advise with them in the matter of refurbishing the canvass. We have no doubt that the Committee appointed will take care not to allow any experimental genius to try his hand at "retouching", etc., the pictures in such a way as to annihilate the hand-marks of the original artificer—a thing which we were once told was done in the National Gallery.

The College has also made a most important addition to its library in the shape of a catalogue, which has just been completed, under the auspices of Dr. Munk, its talented and indefatigable librarian. The labour and expense of this catalogue have been already well rewarded by the discovery of a real literary nugget—of, in fact, a good sized volume which is at least worth its weight in gold. How the volume found its way into the library does not appear. It is a translation (by Caxton himself, in 1471) of Lefevre's *History of Troy*, and is a copy of the first work printed in this country by Caxton. There are, we believe, six copies of the book extant; one of them was some years ago sold at the Duke of Roxburgh's sale for £1060. The volume is very nearly perfect. The title-page and half a page or so, which are missing, can, it appears, be readily made good from the British Museum. The College has determined to go to charges to make the volume complete; and we then trust that they will allow it to find its way into the hands of some more suitable guardians of such a valuable work. Five or six hundred pounds in the Three Per Cents. would, we venture to think, be of much more service, and a much more appropriate property to our modernised College, than the dead-weight possession of a perishable curiosity of this kind. The day for the possession of such recondite luxuries as this by the College has gone by. *Troja fuit.*

THE WEEK.

It is pleasant to recognise any spontaneous expression of kindly feeling to a member of our profession on the part of the public and the profession. It proves that the object of it is a worthy man. The instance of this to which we now refer is the case of Dr. Lingen of Hereford. Our readers may remember that this gentleman has been lately, through no fault of his own—in fact, through doing what he believed to be a benevolent act—brought as defendant into a court of law. True, he there gained the cause; but, as usual, the victory cost him very dearly. Many of his friends, non-professional as well as professional, sympathising with him as the bearer of this hardship, have resolved to express their sympathy with him, and to present to him a testimonial, of such a nature as may be decided upon when it is ascertained to what amount the subscriptions have been received. We believe that this movement has taken place, not through any notion of Dr. Lingen, but rather contrary to his wishes. So numerous, however, have been the expressions of his friends, that it was resolved, at a meeting held in London, at the house of Mr. Clover, Charles Hawkins, Esq., in the chair, to open a subscription for the purpose indicated. It is only fair to Dr. Lingen that these facts should be known to the profession.

THE London College of Physicians has consented to receive certificates of attendance on lectures of chemistry delivered at the Pharmaceutical Society.

SPECIAL hospitals alone, and only a few of them, exercise the speciality of advertising the names of their medical functionaries. A correspondent asks whether the proceeding is in accordance with medical ethics. To this we must answer, that it certainly is not in accordance with the general practice; and that the medical men of one special hospital a few years ago cried "peccavi" on this very score, and gave up the practice as contrary to propriety. In the meantime, we must suppose that the gentlemen who lend their names for the purpose do so out of the pure spirit of philanthropy; viz., to advance the interests of the charity they serve. Of course, the last thing they think of is of any collateral advantages which may thereby accrue to themselves. The Cancer Hospital and the Skin Diseases Hospital are prominent examples in this way. We lately gave an extract from the advertisement of the Cancer Hospital; we now supplement it with an extract from the Skin Diseases Hospital.

"HOSPITAL FOR DISEASES OF THE SKIN. President—Samuel Gurney, Esq., M.P. Surgeon—Mr. Startin. Assistant-Surgeon—Mr. McWhinnie;" etc.

The practice of advertising their names, qualities, offices, and excellencies, by medical men, and espe-

cially by hospital medical functionaries, through the aid of their book-publishers, has become so general, that we would recommend to the notice of members of the profession the above method of performing the same thing. Why should not general hospital men do as these special hospital men, and have their names and qualities appended to the begging petitions which daily appear in the advertising columns of the daily journals? Their celebrity would shed a lustre on the petition, and so benefit their hospital; and, on the other hand, they themselves would make a great economy; for, as everybody knows, the advertising process through a publisher is a very expensive luxury, however, profitable the returns may be.

VILLAGE HOSPITALS will, we have no doubt, gradually rise up in all parts of the country. We have already given an opinion of the great services which they may render to the poor sick and wounded; and that they will do it in the most useful, humane, and economical manner. But we have not closed our eyes to the enormous abuses which they are likely, we fear, to engender—which, in fact, they must inevitably engender—unless they be established on a just and equitable system. We do not hesitate to say, that if in every village in this country a hospital arise, and the work of it is done gratuitously by members of the profession, an enormous system of professional demoralisation will be established throughout the country. We would seriously ask those gentlemen who are disposed to do the medical work of the parish gratuitously, calmly to consider the grounds upon which they undertake it? We would ask them to justify the proceeding in the face of the profession; and, if they can, to give us the reasons why it is right and proper that this work should be done without pay or reward. No doubt, we shall be told, that this is just what is done in our large hospitals. And we admit that it is. But why should that enormous evil be extended through the country? Everyone knows that hospitals and dispensaries are often forced into a hotbed existence simply as a kind of advertisement to their medical promoters, who, whilst engaged in the "glorious cause of humanity," do not forget their own personal advantages. To prevent a further development of this great evil, we would ask those gentlemen who are raising these village hospitals to tell us what are the grounds upon which they propose to do the work of them gratuitously?

WE have received from the Secretary of the Royal National Life-Boat Institution a letter, stating that the subjoined circular is being issued to the principal hospitals and medical societies throughout the United Kingdom; and asking our aid in assisting the officers of the above-named institution to elicit

the best opinions of the medical profession on the important subject to which the circular refers.

"14, John Street, Adelphi, London, Sept. 1863.

"Sir,—I am instructed to acquaint you that until the year 1857, the rules of the Royal Humane Society of London, for the restoration of the apparently drowned, were circulated by this Institution at its life-boat stations on the coasts of the United Kingdom; but in that year, the eminent physiologist, the late Dr. Marshall Hall having pronounced the rules to be wrong, the Committee of the Royal National Life-boat Institution obtained, as far as they were able, the opinions of the chief medical authorities in this country, and of some on the continent, on the relative merits of the two systems.

"Those opinions were so generally, indeed almost exclusively, in favour of Dr. M. Hall's plan, that the Committee felt they had no option but to modify the rules, for the circulation of which they were responsible, in accordance with it.

"Since that period, Dr. Henry Robert Silvester, of London, has proposed a modification of the rules of Dr. Marshall Hall, which, although synonymous in principle, uses a different mode of promoting artificial respiration, which he alleges to be more convenient, and to more effectually perform the same.

"Dr. Silvester's plan has been carefully considered and favourably reported on by the Royal Medical and Chirurgical Society of London, and has been recently adopted by the Royal Humane Society in lieu of their previous rules.

"The Committee of the Royal National Life-boat Institution, not being a medical body, and feeling the serious inconvenience of there being two different plans in circulation, which might lead to hesitation and delay, where decision and promptness of treatment are all-important, are desirous once more to have the advantage of the opinions of the chief medical authorities in this country on the subject.

"I am, therefore, directed to solicit the favour of your opinion on the relative suitableness of the two systems of Dr. M. Hall and Dr. Silvester, as embodied in the rules of this Institution and of the Royal Humane Society, copies of which are herewith annexed, in order that the present rules of this Institution, founded on Dr. M. Hall's plan, should, if necessary, be modified, or those of the Royal Humane Society be adopted in lieu of them.

"I am, Sir,

"RICHARD LEWIS,

"Secretary, Royal National Life-boat Institution."

Subjoined to the letter are copies of the rules advocated by Dr. M. Hall and Dr. Silvester. We have readily given insertion to the circular of the Life-boat Institution, being assured that those of our readers who have had experience in cases of asphyxia, will render every help in their power to the Institution in arriving at a correct conclusion on so important a matter.

M. Batailhé has been lately engaged in experiments relative to purulent infection. Abscesses in the lungs, and in one case purulent pleurisy, were found in dogs into whose veins pus had been injected—provided the animals were not poisoned in a few hours after the injection of the pus. Very minute quantities of putrefied pus were injected at intervals; and the author concludes "that putrefied pus mixed with the blood in very small doses produces metastatic abscesses—provided the pus be injected in

small quantities, so as not to kill the animals at once, and to allow of their living long enough for the formation of the abscesses." It is in this way, he says, that purulent abscesses are formed in cases where putrefied fluids are collected on the surface of recent wounds. The way to prevent all chance of infection is simple. The wound must be dressed with alcoholic liquids, so as to prevent the putrefaction of the discharge, and to close the mouth of open veins and lymphatics. In some rare cases, caustics must be used, and even the actual cautery, to close up the mouth of large veins. M. Batailhé runs his theory out consistently into practice. "In puerperal fever the same treatment must be adopted; the uterus of the recently delivered woman must be treated like a recent wound. In this way, we shall save from 15,000 to 20,000 women who yearly die in France of puerperal fever." According to the author's treatment of external wounds, the accoucheur should run the actual cautery over the internal surface of the uterus in cases of puerperal fever, in order to close up its large gaping vessels. Dr. Batailhé, however, is contented in this case with alcoholic injections.

L'Union Médicale tells us that at the present moment several medical men in France are giving their daughters in marriage; but in no case to a medical man. "This is a sad and serious professional symptom. What does it mean, but that the fathers do not care to trust the happiness of their daughters to doctors? And who can blame them? At the present moment, the difficulty doctors have in getting a living is increased a hundredfold. We are, moreover, assured that the number of students of medicine, who are sons of doctors, diminishes every year."

M. Maisonneuve presented to the Academy a young man, nineteen years old, from whom he received, in August last, an ivory exostosis, situated in the orbit, and implanted on the ethmoid bone. Instead of attempting to remove by pieces the tumour, which would have turned the edge of any instrument, he removed it by means of the gouge and the mallet, breaking it off from the bone to which it was attached, and thus extracting it *en masse*. The tumour weighed ninety grammes, was of compact tissue, and harder than ivory. The movements of the eye have returned, all deformity has disappeared, and the youth may be considered as perfectly cured. He had been suffering for eighteen months.

M. Geoffroy St. Hilaire has placed at the disposal of the Museum two living specimens of *Lepidosirenes*. These curious animals are supplied with a bronchial apparatus as well as with lungs; some naturalists have classed them among reptiles. Owen classes them among fishes.

Progress of Medical Science.

SYPHILITIC DISEASE OF THE MOUTH. Professor Sigmund of Vienna, one of the most eminent syphilologists of the present day, has for some time past been publishing, in the *Wiener Medizinische Wochenschrift*, a series of articles on syphilitic disease affecting the mucous membrane of the lips and mouth. He has been led to this by having lately met with, both in hospital and in private practice, an unusually large number of cases of this kind; and a similar occurrence took place in 1850, when the patients attributed the disease—erroneously, as Dr. Sigmund has been led to think—to the use of cigars. He treats first of primary and afterwards of secondary syphilitic disease of the mouth. On the present occasion, we give a somewhat condensed translation of his remarks on the primary syphilitic affection of this part.

Primary Syphilis affecting the Lips. Most of the cases that came under Dr. Sigmund's notice were in males. The most frequent seat of the disease was the upper lip; and here, as well as on the lower lip, the centre was usually affected, the disease being more frequent and more extensive on the exposed red surface than on the surface next the gums. Primary chancres were rarely seen at the angles of the mouth, and were always confined to one angle. As on the genital organs, the disease first appeared as a simple infiltration of the skin and cellular tissue, with or without the formation of an ulcer.

The indurated chancre, unattended with ulceration and suppuration, appears first as a mere abrasion of the epithelium, with slight swelling of the corium, which presents also fissures of greater or less extent, that sometimes bleed. At a later period, a dead white, yellowish, or brownish, generally firmly adherent scab, is formed of the epithelial *débris*, serum, and blood. The infiltration frequently extends inwards beyond the denuded part: the diseased portion of integument, however, acquires the appearance of having been burned or scalded by a cautery. The edges and base of the infiltration are at first moderately hard; but the hardness increases in the course of the disease, as may be proved by comparison with the healthy surrounding parts. The hardness extends itself either superficially into the skin and upper layer of areolar tissue, or deeply in the form of a roundish knob. In the further progress of the disease, the scab becomes separated, and the corium projects and is observed to be overlaid with epithelial *débris* and pus. A well defined, sometimes channeled, border denotes the limit of the epithelial abrasion. New epithelium is gradually formed at the edge of the abraded part; it has a pale white appearance, and gradually covers the part, so that a new integument is in time formed. The new skin is smooth, very tender, is easily torn, often desquamates anew, and is not safe from lesion until the induration has disappeared, and the ordinary softness and elasticity of the mucous membrane have been regained. The characters of the normal tissue of the part become so perfectly restored, that not even the practised eye can discern a trace of the chancre. The extent of the disease varies from the breadth of a lentil-seed to that of a finger-nail; the infiltration is almost always confined to one spot. The disease is never produced in the sound lip by the contact of the diseased one.

Indurated chancre with ulceration is developed in a different manner. If the infection be accompanied by a wound or fissure in the part, or if this occur at a later period in the infiltrated part, a portion of the affected tissue becomes purulent: this may be produced through the destruction of the tissue by the chemical action of fluids, or by other irritating articles, such as tobacco

and caustics, and by decomposed animal fluids, such as blood and pus. While several of these causes operate on the genital organs so as to produce frequent and great destruction of tissue, it is only through great neglect of cleanliness that any great mischief can be produced by their action on the lips; and when they act, it is most frequently at the angles of the mouth. The observation so often made in regard to the genital organs, that the disease commences with a purulent ulcer within the first twenty-four or forty-eight hours after infection, while the induration is not observed until the second or third week, can very seldom be made in regard to the lips. If the disease occur in an anæmic or cachectic constitution, and the patient be exposed to deleterious influences, such as cold, damp, impure air, or have improper diet, those well known obstinate ulcerations occur which are frequently enough met with on the genital organs, but seldom on the lips. The process of repair of the lost tissue in such cases is always imperfect, and even for years the cicatrix is distinctly visible. The edges and base of these ulcers remain long indurated; and it is only gradually that the extensibility and pliability of the tissue of the lips is able to obliterate any observable traces of the disease.

Veneral non-indurated sores appear so very seldom on the lips, that up to a recent time their occurrence here (or on any part of the head) has been denied. But Dr. Sigmund has no doubt of their occasional occurrence, although it be very rare.

The communication of infection from the diseased to the healthy may be either direct or indirect.

The direct communication of syphilis takes place most frequently through the contact of the lips of a diseased person. The infectious matter is furnished from the mucous membrane of the cheeks, palate, throat, and tongue, mixed with mucus, saliva, pus, and serum. The inoculation of blood alone is sufficient. The infecting matter, however, does not affect the healthy person unless it rest on a surface denuded of skin. The knowledge of this fact, in combination with that of the long incubation and mode of development of syphilis, explains those occurrences for which very exceptional explanations have been offered, and which often have appeared to admit of none; it especially explains the fact, not unfrequently observed, that an individual may communicate a perfectly characteristic chancre to another, and yet may present no appearance of syphilis on the part with which he has touched him. It explains also how the communication of syphilis by the mouth is comparatively so infrequent, although the custom of kissing is so very common even among men; for the infecting material takes effect only when it comes into contact with parts denuded of skin. Infection sometimes occurs through contact of the genital organs with the lips, through a disgusting practice (*coitus viri cum labiis oris femine*). No case has occurred to Dr. Sigmund in which the communication of syphilis could be referred to the sucking of the wound made in circumcision. Doubtful instances of this kind have been frequently related to him; but it has not been proved either that the children were syphilitic, or that the circumciser may not have become infected from some other source. On the other hand, the communication of syphilis to the finger, and thence to the lips, has been repeatedly noticed. A case of this kind, which Dr. Sigmund has observed lately, was that of a midwife who was supposed to have a whitlow on the right forefinger, but in whom the appearance of secondary symptoms (the genital organs and other parts of the body exhibiting no trace of primary disease) showed that the finger was affected with primary syphilis. The skin of the ungual phalanx around the nail was infiltrated, of a deep red colour, and peeled off; and there were bleeding fissures at the fold of the nail. The child under her care contracted a chancre at the right angle of the mouth, and

afterwards had constitutional syphilis. The midwife had nine weeks previously attended in confinement a woman who had papular syphilitic eruption.

Indirect infection most frequently occurs in persons who use instruments which may have been introduced between the lips of patients affected with syphilis of the mouth. Musicians who play on wind-instruments, and workmen who use blowpipes (as glassblowers) are most frequently affected in this way. A very interesting case of this kind occurred in two chemists, who were accustomed frequently to work in their laboratory with the blowpipe. One of them had secondary syphilis and desquamated papules on the mucous membranes of the lips, mouth, and tongue. One blowpipe was in common use with them. His colleague contracted a chancre on the upper lip, without showing any other primary symptom, and without having been in contact with any other source of infection. A similar case was also observed six years ago in a chemical laboratory, where two healthy persons were affected in rapid succession by the same diseased individual. Communication of syphilis through smoking takes place most frequently where pipes are more used than cigars. Dr. Sigmund has observed very few cases of this kind; and the idea entertained in 1850 and 1851, that the syphilitic affections of the lips then prevalent were due to the use of infected cigars, was proved incorrect by an accurate inquiry into the source of the disease in twenty-seven cases. Examination of the persons employed in cigar-manufactories—almost all women and girls—proves the comparatively great rarity of syphilis among them; and the exemplary cleanliness observed in the manufacture renders it almost incredible that the cigars can be charged with infecting matter.

The experience of Dr. Sigmund has afforded him an opportunity of observing an unusually great number of ways in which syphilis may be indirectly transmitted. Many of the data of such cases fall to the ground on unprejudiced consideration, and still more on continued observation of the alleged facts; and hence some deny altogether the mediate communication of syphilis. Unprejudiced and sufficiently extensive and accurate observation must, however, establish more certainly the extent and frequency of mediate transmission. If traces of primary infection be not found on the genital organs or anus, the mucous membrane of the lips, mouth, and fauces should be the more carefully examined. Whenever many men, collected together, use in their common occupation instruments by which infection may be conveyed, especially such as are applied to the mouth, careful attention should be directed to this source of infection; and the diagnosis and etiology should not be grounded merely on the history given by the patient, but on what has been observed by the medical man himself.

Dr. Sigmund believes it very probable that many cases of syphilis in children, which are attributed to other causes, are traceable both to suckling and to artificial feeding, as from a bottle. He refers to a case in which vaccination was blamed as the cause, although nothing abnormal was observed in the development of the vaccine pustule, and it was not until three months afterwards that a chancre appeared at the angle of the mouth. The wet-nurse and a servant in the house both had syphilis; the child was suckled by the first, and was artificially fed by both.

Primary syphilis has never been observed by Dr. Sigmund on the inner surface of the lips and cheeks, on the gums, or on the hard palate; while secondary disease is not unfrequently met with on these parts, especially on the lips, cheeks, and tongue; the same observation is applicable to the soft palate and tonsils. He has, however, observed cases in which limited circular infiltrations with epithelial desquamation were met with on the tongue, tonsils, and soft palate, without any sy-

philitic disease being discoverable on the lips, genital organs, or any other parts of the body. It was extremely probable that the infecting matter had been applied directly to the parts affected; and this view was confirmed by the observation of the further extension of the disease from these points.

It is most frequently in sucking children and in those fed artificially, that several infected spots are observed in the mucous membrane of the mouth. From the often imperfect observation made by those who have the care of such children, it is not strange that the first manifestations of the disease should be overlooked; since, as is frequently the case, they consist of simple infiltration with more or less desquamation and fissures in the mucous membrane, and gradually heal without proceeding further; giving place, however, to a host of constitutional symptoms, the primary source of which is often traced with great difficulty, frequently not at all.

The course of chancre on the lips does not differ essentially from that on the genital organs. Abrasions and local destruction of the integument are favoured by friction, bruising, biting, and by the action of the fluids of the mouth; if it be protected from these influences, the diseased part becomes gradually skinned over, and remains indurated for a longer or shorter time, according to the constitution and habits of the patient, and the treatment to which he is subjected. Even during the continuance of very moderate induration or thickening, new desquamations or destructions of tissue are very easily produced, as is observed also on the genital organs. The lymphatic glands in immediate connection with the diseased parts are at the same time infiltrated, and gradually those which are more distant; first the glands beneath the lower jaw, then the upper and posterior cervical glands, and then the axillary and remaining cervical glands; even the inguinal glands may become involved. Blotches are formed on the external skin; but, being usually of short duration, are not always observed; and accompanying and following these appear scattered papules, usually in small numbers, partly on the face and hairy scalp, partly on the neck, to which they gradually extend from the head. In a number of cases, however, all these appearances affecting the external skin are not produced, or are very scanty and limited in extent; while the palate and tonsils, both together or in succession, more frequently the latter, are the seat of sharply defined swelling, redness, and infiltration, which is soon followed by desquamation of the epithelium and follicular inflammation of the tonsils. The secretion from these, united with the mucus from neighbouring parts, forms often a more or less copious yellowish discharge. All the patients do not suffer from dryness, heat, burning, or difficulty in swallowing, breathing, speaking, and coughing, which might be assumed to be the necessary results of such disease; on the other hand, changes in the voice, even amounting to its loss, are constantly observed; and in persons whose voice was known to Dr. Sigmund before they became diseased, he has observed this change to be produced in the slightest cases. The disease of the palate and tonsils appears first after the chancre of the lips has lasted some time, and simultaneously with the affection of the glands. That the infiltration of the cervical glands is not a mere consequence of the disease of the palate and fauces, is proved by the fact that in some patients these parts remain unaffected, and yet the glands become infiltrated. Certainly, the swelling is increased in several, as the anterior cervical and submaxillary lymphatic glands, as soon as the mucous membrane between the jaws and on the palatine arches and tonsils becomes affected.

The time within which secondary or constitutional symptoms are developed from the local or primary disease, is the same here as in the genital organs. Two or three weeks, seldom later, after the first appearance of

the disease on the lips, the glands become diseased; *i.e.*, from the sixth to the seventh week after the first inoculation, as the incubation-period of syphilis is of two or three weeks' duration. An apparent exception occurs when the contagion is imparted at the same time from a soft venereal ulcer (chancreoid). An ulcer then generally appears in from twenty-four to forty-eight hours, the edges and base of which become indurated at a later period, even in the second or third week. Even here, also, the induration which occurs from the second to the third week, with the gradually developed affection of the lymphatic glands, is characteristic of syphilis; and we observe the same course followed as in "mixed" chancre of the genital organs, and the usual results of this. Acute inflammation of the nearest submaxillary lymphatic glands sometimes even appears, leading to suppuration, as in the soft contagious sore of the genital organs. This combination of the contagious ulcer with the infectious infiltration affords an opportunity for the extension of the disease to neighbouring parts, and gives rise to the production of numerous and extensive purulent discharges followed by slow cicatrization; while the syphilitic infiltration (induration) once developed, does not allow the transmission of the disease in the same individual, even to the adjacent parts or to those with which it comes into contact.

The treatment of chancre of the lips differs from that of the genital organs only in the adaptation of the remedies to the special condition of the part. As local applications, Dr. Sigmund recommends corrosive sublimate (one part in eight of spirit); sulphate of copper and nitrate of silver (in substance, or one part in six of water). Solutions of caustics in glycerine are useful, on account of their not drying too rapidly. Calomel, corrosive sublimate, sulphate of copper, or white precipitate, may also be advantageously combined with diachylon plaster in cases where it has been the custom to use Vigo's plaster. In the application of the remedies, the surgeon should take care to carefully cleanse and dry the diseased spots, and to apply the remedy in very small quantity—in the fluid state, with a brush, is preferable; this is to be repeated daily until the spots are perfectly covered with skin. If considerable reaction follow the use of the stimulant applications, the surgeon must withhold them for thirty-six or forty-eight hours. If firmly adherent scabs be formed, an attempt should be made to remove them without injuring the skin, after first oiling them. If the scabs adhere firmly, and no fluid be concealed beneath them, the formation of skin goes on, and the scabs gradually scale off and leave the new epidermis, somewhat thinner and paler than that in the vicinity. The induration, however, remains for a long time; in some otherwise unhealthy persons, from six to nine months. The formation of new skin and the removal of the induration and of the secondary symptoms are hastened by the combination of local with general treatment. The object is soonest gained by inunction with blue ointment; other mercurial preparations, as corrosive sublimate, calomel, protiodide of mercury, etc., are more tedious in their action. The most thorough cleansing of the mouth and fauces is always necessary. From the commencement of the treatment, lotions and gargles, consisting of solution of chlorate of potassa, borax, alum, sulphate of zinc, tannin, etc., according to the individual state of the mucous membrane, must be frequently used. The teeth and gums must be kept clean by means of charcoal; and if the tonsils be swollen, some of the above-named solutions may be inhaled through the nose or injected on them by the mouth.

DEEP-SEATED ABSCESS OF THE NECK OPENING INTO THE TRACHEA: TRACHEOTOMY: RECOVERY. A man, aged 47, exposed to irritating vapours in the manufacture of nitrate of iron, was seized on September 7th, 1862, with

pain in the throat and hoarseness of voice. Two days afterwards, there was complete aphonia; leeches were applied. On the 13th, there was enormous swelling of the neck, with erysipelatous redness and pulsatile pains. Respiration was difficult; deglutition was impossible. Ointments of mercury and belladonna, and poultices, were applied. The patient, after a fresh application of leeches, spat up for three days thick sanguinolent extremely foetid pus, in such quantities that he thought he vomited it. On September 20th, fluctuation was distinct externally, and was accompanied by a splashing sound produced by the mixture of air with the pus. The abscess burrowed from the larynx to the sternum. In order to prevent the pus from escaping behind this bone, a small counter-opening was made with a lancet; pus escaped with a hissing noise. A plug was introduced and renewed until October 1st, when the sinus was found to be healed. A cicatrix formed a *centimètre* above the cricoid cartilage. Iodine ointment was substituted for the mercurial, to relieve slight engorgement of the neck, which still remained. Soon, however, the purulent expectoration reappeared; and on December 25th, the patient was in a state of asphyxia. Without knowing the cause of this, M. Binaut of Lille, in whose care the patient was, plunged a bistoury into the trachea in the situation of the cicatrix. A sharp hissing sound was immediately heard, and a quantity of blood and air spurted out. The incision was enlarged by means of a probe-pointed bistoury, and a cannula was introduced into the trachea. The patient did not recover sensation until artificial respiration had been employed for some time. Expiration was much more impeded than inspiration; and the cause of this was discovered to be the presence of vegetations lying at the upper part of the wound in the trachea, and obstructing the instrument. Insufflation of alum (which had been used from the first) was persisted in for several days. At the end of March, the patient was able to keep the cannula closed during half an hour, without much inconvenience. It was finally removed on April 16th, and the wound cicatrised completely. Slight oppression alone remained. (*Bull. Méd. du Nord*; and *Bull. Génér. de Thér.*, 15 Sept. 1863.)

EXPULSION OF UTERINE POLYPUS PROMOTED BY ERGOT. M. Duclos has, in a case of fibrous polypus inclosed within the uterus, successfully aided its expulsion by means of ergot, taken in doses of two grammes (half a drachm) daily, for two days in succession. After an interval of eight days, five grammes were again given in two days. During the use of the medicine, the os uteri gradually dilated, the tumour descended more and more into the vagina, and the troublesome hæmorrhage which attended the polypus was arrested. The tumour, however, did not appear at the vulva until six weeks after the use of the ergot, when it was removed by ligature. M. Duclos believes that ergot is capable of affording great aid in the expulsion of uterine polypi; that it has at least the advantage of arresting the hæmorrhage, and thereby of giving time for the womb to unload itself of the foreign body. Sometimes, indeed, as happened in a case under the care of M. Dubreuilh, junior, this treatment fails even in dilating the os uteri; but this has probably been because the medicine has not been given at proper time. The period which seems best for the administration of the medicine is that at which nature seems ready to expel the polypus; that is to say, when the cervix uteri is partially open, thinned at its edges, and dilatable, as in the first stage of normal labour. (*Bull. Général de Thér.*, 15 Sept. 1863.)

INFLUENCE OF ERGOTISM ON THE SECRETION OF MILK. Dr. Poyet describes suppression of the lacteal secretion as a result of the use of bread containing a notable quantity of ergot. This he has noticed in six nursing women who were subjected to the conditions here re-

ferred to. A similar phenomenon has been at the same time observed independently by Dr. Comarmond of St. Galmier. The substitution of good bread for the ergot bread, was sufficient for the restoration of the suspended secretion. (*Bulletin Général de Thér.*, 15 Sept. 1863.)

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
MIDLAND. [Quarterly.]	Board Room of the Infirmary, Derby.	Thursday, Oct. 15, 2 P.M.
SOUTH MIDLAND. [Autumnal.]	Infirmary, Northampton.	Thurs., Oct. 22, 1 P.M.

SHROPSHIRE ETHICAL BRANCH: ANNUAL MEETING.

THE Annual Meeting of the Shropshire Ethical Branch was held at the Lion Hotel, Shrewsbury, on Monday, September 21st, 1863, at 2 o'clock; JAMES BRATTON, Esq., in the Chair. Nineteen members and visitors were also present. Communications were received from numerous other practitioners, expressing their intention to have been present at the meeting and dinner, but were unavoidably prevented.

The following resolutions were passed unanimously.

Vote of Thanks. "That the cordial thanks of the meeting be given to the late President, Vice-Presidents, Council, Treasurer, and Honorary Secretary, for their valuable services during the past year."

Report of Treasurer. "That the Treasurer's Report for the past financial year, now submitted to the meeting (a copy of which was transmitted to each member on the 12th inst.), be approved and adopted."

Election of Officers. "That S. B. Gwynn, Esq., be elected President; J. R. Humphreys, Esq., and J. H. Sutton, Esq., Vice-Presidents; and the following gentlemen members of the Council for the ensuing year, in the place of those who retire by rotation and otherwise:—J. Y. Arrowsmith, Esq.; James Bratton, Esq.; P. Cartwright, Esq.; A. H. Godby, M.D.; and T. Haslehurst, Esq."

Representation of Branch in General Council. "That, in accordance with the eighth general law of the British Medical Association, James Bratton, Esq. (President), P. Cartwright, Esq., S. B. Gwynn, Esq., and the Honorary Secretary, be the representatives of the Branch in the General Council for the ensuing year."

New Members. J. Edmunds, Esq., of Chirk; J. F. Eyeley, Esq., of Llanymynech; G. H. Griffiths, M.D., of Church Stretton; T. Morgan, Esq., of Madeley Market; J. M. Morris, Esq., of Market Drayton; and G. F. B. Willing, L.R.C.P.Ed.,—have been admitted members of the Branch during the current year.

Memorials to the Admiralty and War Office. "That the memorials now submitted to the meeting, praying for an inquiry into and redress of the grievances complained of by the army and naval medical officers, be signed by the President and Honorary Secretary on behalf of the Branch, and forwarded to the First Lord of the Admiralty and to the Secretary of State for War."

Papers and Cases. "That the thanks of the meeting be presented to the gentlemen who have kindly furnished papers and cases."

Vote of Thanks to the President. "That the best thanks of the members be given to the President, James Bratton, Esq., for the courtesy and ability with which he has conducted the business of the meeting, and for his

uniform efforts to promote the honour and interests of the profession."

The Dinner. Nearly all the members present at the general meeting, with several others, reassembled at 3½ P.M., and partook of a sumptuous dinner, under the presidency of James Bratton, Esq. (who presented the members with a dozen of champagne); the vice-chair being filled by S. B. Gwynn, Esq., President-elect. During the evening, various vocal and instrumental solo and concerted pieces were executed by a select band of musicians from Birmingham and Liverpool, and which contributed greatly to the pleasures of the party; indeed, it was remarked by several old associates, that they had never attended a more agreeable and harmonious meeting.

EAST YORK AND NORTH LINCOLN BRANCH: GENERAL MEETING.

A GENERAL meeting of this Branch was held at the Yarrowburgh Hotel, Grimsby, on Wednesday, September 23rd, 1863, at 2 o'clock P.M.; F. B. ANDERSON, Esq., of Hessele, President, in the Chair. Fifteen members and one visitor were present.

Papers. The following papers were read.

1. Preternatural Labour: Rare Presentation. By H. Munroe, M.D., F.L.S.
2. Case of Excision of the Superior Maxillary and Malar Bones. By R. Craven, Esq.
3. Case of Fatal Obstruction of the Bowels, in the person of our late lamented associate, Mr. Land. By H. Sandwith, M.D.
4. Cases of Lithotomy. By J. Dix, Esq.

Mr. Craven's paper was made very interesting by the presentation to the meeting of the patient upon whom the operation has been successfully performed. It has lately been the custom of the members of this Branch to illustrate their papers, when practicable, by the production of the patients themselves; which adds much to the interest of these meetings.

The papers read at the meeting will be forwarded for publication in the JOURNAL.

The reading and discussion of the foregoing papers, occupying so much time, prevented Sir H. Cooper, M.D., from delivering a paper on a Case of Pyelitis and Purulent Infection.

Dinner. At half-past four o'clock, an excellent dinner was provided. F. B. Anderson, Esq., the President, occupied the chair; and Dr. Daly, the President-elect, the vice-chair. A very pleasant evening was spent.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE first meeting for the session 1863-4 (seventh) was held at Rochester, on September 25th, 1863; Dr. ARMSTRONG, President of the Branch, in the Chair. There were present ten members and visitors.

New Member. Charles Strickland, Esq., Royal Navy, serving in H.M.S. *Wellesley* at Chatham, was elected (subject to approval at the annual meeting of the Branch).

Communications. Dr. FREDERICK J. BROWN read the following papers.

1. Treatment of Bronchitis after Measles.
2. Fatal Case of Varicella.
3. Case of Phthisis, masked in its last Stage by Præcordial Distress.
4. Interment of Still-born Children.

The discussion of the last paper was adjourned to the next meeting, in consequence of the importance of the

subject, and the attention bestowed upon it by the public at the present time.

After the usual thanks, the members and visitors adjourned to dinner.

Correspondence.

THE VACCINATION ACT.

SIR,—In your number for Saturday, September 20th, I read some remarks on the reasons alleged as the causes of the failure in the working of the now existing Compulsory Vaccination Act. As I have lately had considerable experience in the working of public vaccination under contract, perhaps a few words from me may not be out of place.

Without attempting to say a word on the subject of remuneration, which is the chief point urged in the remarks I read, I will simply state what seems to me to be one reason why it does not work as it should do. As far as I can learn from inquiry, there does not seem to be any one whose business it is to enforce the fine on those who do not obey the law. We have to return a duplicate certificate to the registrar of the district where the birth took place, and he has to mark them off in his books as successfully vaccinated. I think that if he or some one else were to be paid a certain sum per case for each instance of neglect of compliance with the Act which he informed against, and the fine were *really* enforced, we should arrive as nearly as possible at general vaccination; but, until the fine is enforced, vaccination cannot be general, as there is still a great prejudice against it with some people. I am, etc., M.R.C.S.

October 1863.

HEMIPLEGIA AND HEMICHOREA.

LETTER FROM STEPHEN MONCKTON, M.D.

SIR,—In the JOURNAL of September 19th is noticed a case of hemiplegia and hemichorea occurring in a child under M. Bouchut at the Children's Hospital at Paris. As such examples are not common, it may be worth noticing that an instance precisely similar is now to be found among the out-patients of the West Kent General Hospital. The patient is a boy, Joseph S., aged 9, of rather dirty and ill nourished appearance. Early in December 1861, he had a thrashing at school, which seems to have preyed upon his mind, and led to some little terror about going thither afterwards; still the shock was not great, and disappeared in a week or two. After being pretty well for a fortnight, he began on Christmas Eve to manifest choreic movements; these grew worse and worse, and were soon observed to affect the right side only. In ten or fourteen days, the involuntary twitches became really vehement, and the voluntary power over the same side very much reduced; there being at the same time dulness of perception and oddness of manner, amounting now and then to delirium. He became an out-patient at the West Kent General Hospital, and was discharged cured in nine weeks—*i. e.*, early in March 1862. He remained well fifteen months, and was brought again on June 27th, 1863, with the same train of symptoms; decided chorea; decided, though not absolute, hemiplegia—both limited, as in the first attack, to the right side. Under cod-liver oil and steel wine, improvement took place; and he is now almost well enough to be discharged. There was no sign of rheumatism, scarlatina, or heart-disease, in connexion with either illness; and the absence of any organic brain-lesion may also be fairly inferred from the incomplete, unsteady, and recoverable character of the paralysis. I am, etc., STEPHEN MONCKTON.

Maidstone, September 26th, 1863.

Medical News.

ROYAL COLLEGE OF PHYSICIANS. At a general meeting of the Fellows, held on Wednesday, Sept. 30th, 1863, the following gentlemen, having undergone the necessary examination, were duly admitted members of the College:—

Fenwick, Samuel, M.D. St. Andrew's, 74, Harley Street
Fussell, Edward Francis, M.B. Aberdeen, Brighton
Moore, William Withers, M.D. Edin., Brighton
Mushet, William Boyd, M.B. Lond., Upper Norwood
Sutton, Henry Gowen, M.B. Lond., 5, Warter's Bldgs., Holloway
Thorowgood, John Charles, M.D. Lond., 10, Finsbury Circus

At this meeting, the following gentlemen were reported by the Examiners to have passed the examination in the subjects of General Education:—

Barry, James W., Ramsgate
Edwards, Edward N., Chatham
Evans, David, Wrexham
Howard, James, Dukinfield
Hurlstone, M. de Galway, Great Russell Street, Bloomsbury
McDonald, John C. F., Denbigh Street, Delgrave Road
McGregor, Alex., Acton, Northwich
Parkinson, Edmund W., Red Hill
Parr, Charles, 16, Ashley Place, Westminster
Parr, George, 16, Ashley Place, Westminster
Rhodes, Charles J., Pontefract
Strange, Frederick W., Beetham, Reading
Ward, John L. W., Cardiff

APOTHECARIES' HALL. On September 24th, the following Licentiates were admitted:—

Richards, Joseph Peeke, Oxford Terrace, Islington
Sejunt, David Maurice, Queen's Road, St. John's Wood
Tuxford, Arthur, Boston, Lincolnshire
Vallance, Edmund, Brighton

At the same Court, the following passed the first examination:—

M'Mahon, James Thomas, Charing Cross Hospital

APPOINTMENTS.

HAMILTON, Robert, M.D., has been appointed Keeper of the Rolls, etc., of the Parish of St. Andrew's, Jamaica, by the Lieutenant-Governor.

OSMOND, Thomas, Esq., appointed Resident Surgeon to the Birmingham Lying-in Hospital.

ORTIZ, E. M., M.D., appointed Resident Surgeon to the Birmingham Lying-in Hospital.

POOR-LAW MEDICAL SERVICE.

ANDREW, T., L.R.C.P. Ed., to the parish of Kilmadock, Perthshire.

DEWAR, William H., Esq., to the parish of Kinross.

TEMPLE, Alfred R., Esq., to the Cambridge Union Workhouse.

BIRTH.

DAVIS. On September 20th, at St. George's, Wellington, Shropshire, the wife of *W. Davis, Esq., of a son.

DEATH.

WEBB, Allan, M.D., Surgeon-Major Bengal Medical Staff, at Clevedon, aged 55, on September 15.

THE NEW HOSPITAL AT CHATHAM. In the new hospital at Chatham, a Lock Ward is to be established and sustained at the expense of the government.

OBSTETRICAL SOCIETY OF LONDON. The first meeting of the Society, after the recess, will take place next Wednesday, October 7th, at 53, Berners Street.

ANOTHER NEW METAL. Another new metal has been announced by MM. Reich and Richter. They call it Indium. It was found by them in some Freiberg arsenical ores.

THE "MISS NIGHTINGALE" NURSES. Twelve nurses are now in training at St. Thomas's Hospital. Of those who have already been educated there, twenty are employed in different hospitals in the country. A plan for training midwifery nurses at King's College is also in progress.

DEATH FROM CHLOROFORM. On the 23rd ult., a man died under chloroform in the London Hospital; and on the following day another under the same influence in St. George's.

THE CHANNEL FLEET. The medical officers of the fleet were entertained at dinner on the 29th ult., by Dr. Corrigan, the President of the Royal College of Physicians of Ireland.

SOCIAL EVILS. In last week's mortuary returns for London, we find that four deaths were ascribed directly to intemperance, besides four to *delirium tremens*. Seven infants died of syphilitic disease.

PLYMOUTH DISPENSARY. It is, we learn, the intention of Dr. Cookworthy to resign the office of physician to the above dispensary, which he has held for the long period of forty-eight years.

FOREIGNERS IN ENGLAND. According to the census of 1851, there were in England 278 foreigners belonging to the medical profession, including 105 druggists under that description.

CIVIL SURGEONS IN CHARGE OF TROOPS. An amended scale of rates and allowances to be paid to civil surgeons placed in charge of troops at foreign stations, or who may have embarked in charge of troops, has been issued by the Secretary of State for War, and all previous orders on the subject are cancelled.

COTTAGES FOR THE LABOURING CLASSES. Two prizes of £25 each have been placed in the hands of the Council of the Society for the Encouragement of Arts, by J. Bailey Denton, Esq., to which is added the society's medal, to be offered for the most approved designs for cottages, with three bedrooms in each, to be built singly or in pairs, at a cost not exceeding £100 each.

PURE WATER FROM LEAD PIPES. A patent has just been taken out in this country for a method of rendering lead pipes unacted upon by water. The discovery is due to Dr. Schwartz, of Breslau; he proposes to fill the pipes with a strong solution of an alkaline sulphide, and allow them to remain in contact for ten or fifteen minutes. A coating of insoluble sulphide of lead is thus formed, which is said to act as a perfect protecting varnish, preventing further action between the water and lead.

A NARROW ESCAPE. A woman, supposed to be dead, was a few days back removed to the hospital of Bihdah, in Algeria, for the purpose of being subjected to a *post mortem* examination, her disease having appeared inexplicable to the medical men who had attended her. As the surgeon was about to make use of the scalpel and commence her dissection, the supposed corpse uttered a loud shriek and sat up. She had been in a state of lethargy and awoke just in time. It will be remembered that Abbé Prevost, the author of *Manon Lescaut*, was less fortunate; it is known that he died from wounds inflicted by the dissecting knife under similar circumstances. (*Galignani*.)

OZONE. Mr. Burder of Clifton, referring to eight years' observations with Schönbein's test-papers made by him, says: "The fact to which I wish to call particular attention is that the wind which has recently come over the sea invariably or almost invariably brings with it a large amount of ozone, while a land breeze usually yields but a small amount. A strong W.S.W. wind here is always charged with a large quantity of ozone, while other winds are generally but slightly charged with it, and such as have passed directly over the city of Bristol are altogether free from it. A recent visit to Sidmouth, on the south coast, has quite confirmed my previous notions in regard to sea breezes and ozone, and I may mention that a correspondent in New Zealand to whom I sent some test papers, assures me that he has obtained simi-

lar results in that island. Facts such as these, now satisfactorily proved, may help us in our endeavours to ascertain the truth in reference to this rather mysterious agent, which, in addition to its interesting nature in a meteorological point of view, is generally considered as of importance in regard to health."

DRUNKARDS. In the year ending at Michaelmas last, 94,908 persons—260 a day—were proceeded against before justices in England for drunkenness, or for being drunk and disorderly, and 63,255 of them were convicted. The great majority were only fined, but above 7,000 were committed to prison. The returns show a great increase over the previous year, for only 82,196 were then charged with drunkenness, and only 54,123 convicted. Of the persons thus charged in the last year 22,560 were females, and more than 10,000 women were convicted for being drunk. Coroners' inquests in the year 1862 found 211 verdicts of death from excessive drinking, 145 men and 66 women thus ended their days.

CHARGE AGAINST A HOMEOPATHIC PRACTITIONER. This was a complaint brought by a medical man against the defendant, under the Medical Practitioners' Act, sec. 7, for assuming the style and title of "doctor," without being registered according to the Act, and therefore unlicensed to act as a medical man. Mr. Walsh stated the case. He produced the list of legally qualified medical men, issued by the Registrar-General. The defendant denied that he called himself a doctor. William Macfarlane deposed that he knew the defendant; he had a sign over the door with "Dr. Hickson" on it. He had a sign-board in the hall of the Mechanics' Institute also with "Dr. Hickson" on it. The defendant's name did not appear in the medical register as issued by the Registrar General. The defendant's name did not appear in the supplementary list. Cross-examined: On your sign-board I saw "Dr. Hickson." The word doctor was contracted. It would stand as contracted for other words. It would stand for debtor. The defendant having addressed the bench in defence, Mr. Clissold said the case was quite clear. There was an appeal, and the defendant could, if he chose, take an appeal to a higher court. If the defendant chose, the bench would increase the fine from what it intended it to be. The bench would fine the defendant one shilling. (*Ballarat Star*.)

A FEMALE IMPOSTOR. A young woman, with three aliases, who had been remanded on a charge of imposture, was again brought up before the Wolverhampton borough magistrates. It was established that she was the daughter of respectable working people of Burslem, which place she left of her own accord. Since that time she has been travelling in many parts of England, and obtaining a livelihood, in prison and out, by bringing serious charges against imaginary men. At one time she is found on the roadside, lying dishonoured by three ruffians; at others she is in the streets at midnight, throwing off her clothing and preparing to drown herself; again she is taken up partially insensible in the street, also at midnight muttering about poison and seduction. On other occasions she is found in a fit at a railway station, and is removed to the hospital of the town; whilst on others, as in Wolverhampton, she alleges that she is about to become a mother, and that her seducer has forced her to take a poisonous drug. So successful was her poison tricks at Eccleshall, in Staffordshire, that two surgeons advised that her deposition should be taken, and two magistrates were called out of church on a Sunday, and were present whilst their clerk took her statement. She had been taken to the hospitals of Chester and Wolverhampton, and had become so notorious to the Cheshire constabulary, that they had her photographed, and labelled the likeness as that of an incorrigible impostor. The magistrates committed her for trial.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
 TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
 WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
 THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
 FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
 SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY, Obstretical Society of London, 8 P.M. Mr. Hardey Hall, "On Retroflexion of the Uterus"; Dr. Madge, "On Hydrocephalus"; Dr. Pritchard (Glasgow), "On Abortion produced by Tents of Sea Tangle".

POPULATION STATISTICS AND METEOROLOGY OF LONDON—SEPTEMBER 26, 1863.

[From the Registrar-General's Report.]

	Boys.. 948	Deaths.
During week.....	{ Girls.. 853 }	1801 1233
Average of corresponding weeks 1855-62		1880 1240
Barometer:		
Highest (Sat.) 29.935; lowest (Tu.) 28.801; mean, 29.274.		
Thermometers:		
Highest in sun—extremes (Mon.) 101 degs.; (Th.) 84.5 degs.		
In shade—highest (Sat.) 63.2 degs.; lowest (Wed.) 40.8 degs.		
Mean—56.4 degrees; difference from mean of 43 yrs.—4.9 degs.		
Range—during week, 22.4 degrees; mean daily, 17.2 degrees.		
Mean humidity of air (saturation=100), 80.		
Mean direction of wind, S.W.—Rain in inches, 0.97.		

TO CORRESPONDENTS.

* All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

ERRATUM.—In the advertisement of *Guy's Hospital Reports*, in last week's JOURNAL, the articles 3 and 4 should have been announced as "On the Stereoscope", and "On the Stereoscopic Test", instead of "Stethoscope", and "Stethoscopic Test".

THE MEDICAL COUNCIL, F. APOTHECARIES' HALL.—We were wrong, it appears, in attributing to the Medical Council any credit for having introduced Mr. Lacey, of the Wyle Cop, to the profession. The whole glory of the thing belongs solely to Apothecaries' Hall, so they shall not be robbed of it. They examined the gentleman, found him a proper and fit individual, took his money, and admitted him a Licentiate of their Honourable Company. The Medical Council has, it appears, no option but to accept all presents of this kind legally forwarded to them from the Hall. Even if they had been most anxious in this case to refuse registration, they could legally no power to do so. The Medical Council is, unfortunately, continually discovering the limits of its legal powers—what it cannot do. It is to be hoped that when the lesson is complete the profession will aid it in going to Parliament for more extended powers.

P. F.—We can give our correspondent no information as to the composition of a "Greek fire". The use of any article of this kind at Charleston, as far as we can make out up to the present time, is purely mythical. Neither General Gilmore nor General Beauregard speak of this "Greek fire". We suspect it to be a newspaper invention, or a wishful expression of the Yankees' desperate tendency of mind at this moment.

REMEDY-PUFFING.—We believe that the puffing to which our correspondent alludes, going on within the profession, is as hurtful as the extra-professional puff. He objects to our using the term; but we consider that under the word may most fairly be brought any unreasonable laudation of a reputed remedy. The practice has always been a frequent one in past days, in and out of the profession; and is not uncommon at the present day within the profession. The best of motives or the very lowest of motives impel individuals of weak or of dishonest minds to the practice of this bad thing. And, unfortunately, whatever be the motive, whether ignorant goodness or lucre-seeking badness, the injury is in both cases alike, and falls heavily both upon the public at large, and upon the character of the profession itself.

BAD MEAT AND CARBUNCLE.—SIR: I send you the following police report; and would beg to ask you for the grounds upon which Dr. Gibbon founds his statement, that the eating of bad meat renders persons liable to "carbuncle", etc.

"Clerkenwell.—John Jarvis, a carrier of Northampton, was summoned before Mr. Barker for bringing two diseased carcasses of beef to London, prepared for London food.

"Mr. Hopwood, solicitor to the Sanitary Board for the parish of St. Andrews, attended for the prosecution.

"Dr. Septimus Gibbon, the Medical Officer of Health, proved that the meat was quite unfit for human food. Persons partaking of it would be liable to carbuncle and derangement of the system.

"Mr. Barker ordered the defendant to pay a fine of £10."

I am, etc., U. V.

[We really cannot answer our correspondent's question; but no doubt Dr. Gibbon has satisfactory grounds for his statement.]

ONLY A FLEA-BITE.—SIR: A common expression, when speaking of any trivial circumstance, is, "Oh, it's a mere flea-bite"; but many people who make use of that expression do not imagine what a frequent cause of annoyance and disgust these creatures cause to medical practitioners, and particularly to those whose practice calls them to the houses of pauper, dispensary, or club-patients.

My motive in writing this letter, is to ask my medical brethren, through your columns, if any of them know of any effectual precaution which can be taken, or any drug which can be used (not offensive to society or injurious to ourselves), so as to prevent the too kind attentions of these irritating creatures and their still more disgusting cousins.

I should feel grateful to any one whose experience could suggest to me some effectual preventive against such annoyances (for they are such, though trivial); we should then visit our poorer patients with the agreeable assurance of not bringing home any such uninvited company.

I am, etc., M.R.C.S.

SUBSCRIPTIONS.

THE following Laws of the Association will be strictly enforced:—

15. The subscription to the Association shall be One Guinea annually; and each member on paying his subscription shall be entitled to receive the publications of the Association of the current year. The subscriptions shall date from the 1st of January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous. If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid.

16. The name of no member shall remain on the books of the Association, whose arrears extend over three years; but the omission of the name from the list of members shall not be deemed, either in honour or equity, to relieve any member from his liability for the subscriptions due for the period during which he has availed himself of the privileges of membership.

THOMAS W. WILLIAMS, General Secretary.

Birmingham, September 1863.

COMMUNICATIONS have been received from:—Dr. LIONEL BEALE; Dr. DURRANT; Dr. ROBERTSON; F.R.C.S.; Mr. WILLIAM COPNEY; Mr. PADDON; Dr. T. W. BOTT; M.R.C.S.E.; Mr. SYDNEY JONES; Mr. J. SPOULE; M.R.C.S.; Mr. CRAIG; Dr. FREDERICK J. BROWN; Dr. FOX; Dr. STYRAP; Dr. S. MONCKTON; Dr. HENRY MUNROE; Dr. MARLEY; Mr. C. J. EVANS; Mr. JOHN C. WORDSWORTH; and Dr. GRAILY HEWITT.

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

ON "DEFICIENCY OF VITAL POWER" IN DISEASE, AND ON "SUPPORT":

WITH OBSERVATIONS UPON THE ACTION OF ALCOHOL
IN SERIOUS CASES OF ACUTE DISEASE.By LIONEL S. BEALE, M.B., F.R.S., Physician to
King's College Hospital.

FROM the earliest ages, those who have devoted themselves to the study of disease have invariably attributed the highest importance to the condition of the blood. To a bad state of this fluid many ailments were attributed. To alter this state was the main object of the treatment to which the patient was subjected. Modern research has not failed to confirm the opinion so long and so generally entertained with reference to the high importance of a healthy state of blood; and modern practice is eminently conservative of this fluid. The very principles upon which the removal of large quantities of blood was advocated and carried out at various periods in the history of medicine have been overthrown, and the theories of inflammation which are even yet maintained by some, have been completely destroyed by observation and experiment. The blood, which used to be drawn for the purpose of reducing an excess of action, is now considered, in cases of the very same nature, to be absolutely necessary to the recovery of the patient; and it has been proved most conclusively—1. That morbid changes, which were supposed to be checked by bleeding, really continue in spite of it; and 2. That by violent bleeding the general condition of the patient is rendered much more serious. Formerly, a patient was bled to *cut short the disease*; now, he is bled only for the purpose of relieving the tension of over-distended capillaries.

The blood has been, and still continues to be, regarded as a living fluid which carries life to all the tissues. Vital power is said to be reduced by abstraction of blood. Vital power is said to be restored or "renewed" by those remedies which increase the quantity of blood or improve its quality.

That the blood is the medium by which nutrient matter is distributed to all the tissues of the body, is beyond question. That its qualities are altered in disease, and that in many instances the blood is as it were the starting-point of certain morbid changes, is undoubtedly true. That remedial measures adopted with the view of altering the character and modifying the changes taking place in the blood in disease, are really efforts pursued in the right direction, seems to accord with the results of observation and experiment. But that the blood transmits *vital power* to the body generally, to the tissues of the body individually—that vital power is diminished by its abstraction, or increased by any alteration occurring in the blood—seems to me utterly untenable, and there is no reason whatever for assuming that what we call *vital power* can be carried from one place to

another by any fluid or solid, and distributed to structures in a distant part of the body. Nor is it probable that this wonderful vital power can be added to or taken from any tissue at all. The blood may be called a *vital fluid*, but the term is not correct; for the soluble albuminous constituents, and probably even the red blood-corpuscles, are as inanimate while circulating in the vessels of the living body as they are after the blood has been withdrawn from the vessels.* And it would be as unreasonable to assert that the simplest vegetable and animal organisms derive their nutriment from *living matter* in the medium that surrounds them, as to consider every fluid and every particle of matter which contributes to the nutrition of a living tissue in a state of active vitality.

On the contrary, every kind of pabulum is inanimate. Everything which contributes to nutrition is lifeless. Living matter never lives upon *living matter*. The pabulum of the tissues, especially in the case of man and the higher animals, results, no doubt, entirely from the death of living matter; but, as pabulum, it is inanimate. The blood, then, is not a living fluid. Although it contains masses of living matter (white corpuscles), it contains many corpuscles which are not living (fully formed red corpuscles). Neither is the fluid part of the blood living. Nor can blood, lymph, or chyle, or cod-liver oil, or alcohol, or any nutritive fluid whatever, be correctly spoken of as *life-giving*. And it is most important that I should express myself clearly upon this point; for undoubtedly many in their writings, perhaps unconsciously, exhibit a leaning towards the notion that certain lifeless organic or inorganic particles may come together under certain conditions, and afterwards exhibit *vital properties*, without any matter actually living being present. Now the evidence is most conclusive that particles of living matter exist smaller than any that we can see by the aid of the highest powers we possess—that is, three thousand diameters, or a power which would make one inch appear to occupy a length of 250 feet; and yet we have reason to believe that such minute particles have sprung from preëxisting living matter, because, when they grow large enough to be seen by us, they assume the parental characters; and, when one of the visible particles is divided into smaller portions, each portion grows and may extend itself, as from a centre, infinitely. Each separate particle increases, not by particles already existing being applied to it or coalescing with it, but by the passage of soluble matters into its very substance, and their conversion into matter of the same kind. I have brought forward many arguments which seem to me to amount to proof that "*every living particle comes from a preëxisting living particle*"; and I am convinced that it is as impossible for the smallest living particle to arise in these days in any other way than this, as it is for one of the higher forms of life to be produced spontaneously. Nothing gives life but that which is living; and it is as impossible for a living cell to spring up in a lifeless exudation, as it is for a living organism to arise in a chemical solution. Spontaneous generation in any form must be utterly abandoned, and we are now fully justified in condemning it absolutely. Neither even do certain conditions call forth "*vital energy*", or act as "*vital stimuli*", or increase vital power which already exists. Heat, various external conditions, and excitants or irritants, as they are termed, act simply by diminishing to some extent the restrictions under which life is ordinarily carried on.† Thus pabulum comes more readily and more quickly into contact with matter that already lives.

* The matter of which each red blood-corpuscle is composed, tends to assume the crystalline form when its movement ceases. This is well seen in Guinea-pig's blood, where each red corpuscle becomes a tetrahedral crystal. This fact is conclusive against the notion that red blood-corpuscles are in an active state of vitality. Living matter does not crystallise.

† This question of stimuli, excitants, and irritants, is discussed in a short paper published in the *Lancet* for December 6th, 1862.

The blood does not transmit life to the tissues; for every tissue contains in its substance matter in a state of active vitality. The inanimate pabulum merely passes from the vessels and permeates the lifeless tissue. It comes into contact with the living matter; and certain of its constituents acquire at once vital properties, powers, or endowments. There is no reason to suppose that living matter (for instance, the so-called "nucleus" of a cell) exerts any influence upon matter at a distance from it; but it appears probable that in all cases the changes which occur in nutrition are simply these:—

1. The inanimate pabulum permeates the inanimate tissue (cell-wall, intercellular substance), and comes into contact with the living or germinal matter (usually termed "nucleus").

2. Certain of the inanimate constituents become living or germinal matter.

3. Particles of the living or germinal matter after a time undergo change—in fact die, and become gradually converted into inanimate "cell-contents", "cell-wall", or "intercellular substance".

4. These inanimate *formed substances* may accumulate and undergo condensation and other physical and chemical changes, or they may be resolved by the action of water, oxygen, and the like, into new substances as fast as they are produced. The substances produced, being carried off, constitute a secretion.

See diagrams illustrating these conclusions.

I have endeavoured to show that every tissue and every living organism is composed of elementary parts (cells); and that each of these consists of matter that is living and matter that was once alive—of germinal matter and formed material; and that vital changes go on in the first, while physical and chemical changes alone proceed in the last. For instance, of a cuticular cell, the so-called "nucleus" alone lives, while the hard cuticular matter upon which the properties of the cell depend is not alive; but this was *once* in the condition of the germinal matter.

I have also advanced many facts which justify this simple inference: that the rate at which this living matter grows, and is reproduced, is determined solely by the facility of access of the proper pabulum; so that, if nutrient matter comes into contact with the living matter readily, the living matter increases rapidly. In short, the more it is fed, the faster it grows. The *power* of growth of living matter remains the same, but growth always occurs under certain restrictions. The restrictions or impediments to the access of nutrient matter vary in different cells, and in the same cell at different periods of its existence.

Now we can tell at once, by the characters of a cell, whether it grows quickly or slowly. Wherever the outer part of the cell (formed material) is firm and hard, and not very permeable to nutrient matters, the growth must have been slow. Where the envelope is very thin, and where there is no envelope or cell-wall at all, the greatest facilities for rapid growth exist. For example, contrast the pus-corpuscle, consisting almost entirely of germinal matter, with a fully formed cuticular cell, in which the germinal matter is surrounded by a very thick layer of slightly permeable cuticular substance. (See figures.) The restrictions to the growth of the last are far greater than the restrictions to the growth of the first.

Anything which renders the wall of such cuticular cell more permeable will facilitate the access of pabulum, and the germinal matter will increase more rapidly; so that rapidly-growing cells may come from slowly-growing cells. (See figures.) Pus may result from the rapid growth of the germinal matter of epithelium, fibrous tissue, nerve, or other tissue. Cancer grows faster than healthy epithelium or other normal tissue, but not so fast as pus; hence epithelial cancer is less permanent as a tissue than the normal epithelium, but more lasting

than pus. In the normal state, the living matter of the cuticular cells, which gradually advance layer after layer towards the surface, dies very slowly and regularly; and the quantity of nutrient matter taken up becomes less and less as the cell advances in age. In epithelial cancer, the cuticular cells grow more quickly than the normal cells, because the outer part is softer and more permeable to nutrient pabulum.

In the formation of pus from cuticular epithelium, the pabulum comes into contact with the living matter; the corpuscles multiply, and at last so rapidly that there is not time for gradual conversion of the living or germinal matter into cuticular substance. The living cells, after accumulating for a time, escape from the surface, and are killed; or, the supply of nutrient matter ceasing, they die and become liquefied. If upon the surface the matter resulting forms a scab, beneath which the cells grow less rapidly, and time is allowed for the gradual formation of the external cell-wall or cuticular matter; if, in the substance of a tissue, the cells grow at the expense of the tissue, and increase in the cavity or space thus formed (abscess), at last they will make their way through that part where resistance is the least; or, if deprived of pabulum, they may die, and the products resulting may be almost entirely absorbed, with the exception of a little fatty, saline, and insoluble albuminous matters, which remain, and form a thick matter of cheesy consistence, which undergoes very slow change. It will be said: "True; but pus and the cells of lymph and cancer are not *lasting structures*, and therefore do not evince the 'high state of vitality' characteristic of normal tissues." But, upon this view, *peristence, slow growth, slow change*, and the conversion of *very little nutrient matter* into living matter, are considered to be indications of a "high state of vitality". If we are to regard these characters, which exist in many healthy tissues, as evidence of an increased or high degree of vitality, as compared with pus, cancer, and other active and rapidly growing cells, then an old dry cell of cuticle is in a more vital state than a young and actively growing one; a dry hair is more vital than the soft cells of an intestinal villus; the hard dry cells of a cocoa-nut shell, or a walnut shell, or a peach stone, which have ceased to change, exhibit "vitality" in a more remarkable degree than the rapidly growing cells of a young leaf, than the rapidly multiplying cells of many fungi, and the soft moist cells of all growing and changing vegetable tissues. If this view be true, an old tissue is in a higher state of vitality than a young one. Still following out the same line of argument, we are forced to admit that that which has ceased to grow and has ceased to change—that which cannot form, or change, or modify—that which has no inherent power of motion, conversion, or formation—that which is, in short, *dead*—exhibits a higher degree of "vital activity" than the soft, ever-changing matter which possesses all these wonderful powers—which, in short, *lives*.

If, on the other hand, rapid growth—the appropriation of a large quantity of nutrient matter—rapid change—rapid increase of bulk—are evidences of a *high degree of vitality*, then a pus-cell and a cancer-cell, so far from manifesting a deficiency of vital power, exhibit unmistakable evidence of vital activity, and agree in this with all young tissues, and with the rapidly growing "cells" of the adult organism. If "increased vital activity" means anything, it means that, in a given time, a greater quantity of inanimate pabulum becomes living matter; and it follows that pus and cancer and the granular cells, growing so fast in many morbid conditions, manifest *increased, not deficient vitality* as compared with epithelium. But it is more correct to say that, in the former, "the restrictions under which growth occurs are greatly diminished, as compared with the latter," than to speak of *varying degrees or excess or deficiency of vital power*.

In health, there are tissues exhibiting every degree of slow and rapid change (vital activity), from the scarcely altering enamel and dentine to the so-called cells (masses of germinal matter) which are found in such numbers in every villus, many of which pass through perhaps every phase of existence during the absorption of a single meal.

We very often find that tissues which grow very slowly in the normal state, in disease exhibit remarkably increased activity; and in this *more rapid growth* and change alone, does the morbid, oftentimes differ from the normal state.

It will be observed that, in these conclusions, I differ materially, and in fundamental principles, from the views generally entertained. It is impossible, in a communication like the present, to advance all the arguments in favour of the inferences deduced; and to attempt this would be making this paper more tedious than it must of necessity be. But, unquestionably, good practice has been so frequently supported by thoroughly unsound reasoning, that it sometimes happens that, when the argument has been proved to be false, the practice is abandoned as useless; and thus from period to period we vacillate almost from one extreme to the other, and from year to year we work in recurring circles. Earnest men become sceptics; and, in the course of years, most valuable practical conclusions, arrived at from actual experience, are forgotten, because the theory upon which these conclusions were based has been proved to be unsound. May we not retain in practice what in the depleting process has been proved to be true, although the principles upon which depletion was carried to extremes have been proved to be erroneous? Why may we not retain what is good in the system of support, although it may be true that stimulants neither support life, nor give life, nor nourish tissues, nor supply the place of food, nor directly affect the disintegration of tissues?

By violent bleeding, the blood that remains becomes weaker, and the watery parts necessarily permeate tissues more readily. Thus rapidly growing cells, such as exist in the air-cells in pneumonia, grow still faster, because they are supplied more freely with nutrient pabulum; while alcohol in several ways probably interferes with the growth of these cells, and thus tends to put a stop to the "inflammatory process". The results of practice support this theory: that in low conditions of the system, and by profuse bleedings, the growth of adventitious products is *accelerated*; while it is retarded by alcohol, acids, and some other substances.

Of all the dogmas ever insisted upon in the history of medicine, it is doubtful if any one has received more general support in one form or another, or has been adopted more generally, than the dogma that, in some way or other, disease is a *deficiency of action*; and that support is required to counteract this tendency to depression of the vital powers. Something extra must be added to make up for the loss occasioned by the diseased state. And, although we see structures in disease growing so fast that difference in bulk is perceptible from day to day, still we cry "*deficiency of action*", "*defective vital power*", "*diminished vitality*". The surgeon "*stimulates*" the wound with caustics, and "*increases*" the "*vitality*" of the surface just below; the physician pours in brandy, and "*increases the vitality*" of the affected tissues; yet, after both applications, many cells that were alive are undoubtedly *killed*, and those that escape death live and *grow more slowly than before*. And this *diminished rate of growth and life* is just what is required—is the very condition which approaches to the healthy state. But is it not, as compared with the morbid state, the very reverse of "*increased vitality*"?

Now every one would argue that there was deficiency of vital power in a case of low pneumonia; and yet what evidence is there of such deficiency? It is true, the

patient is weak and cannot move; he may be delirious; all his muscles may be relaxed; his heart's action may be weak; and he may be dying of exhaustion; but it has not been shown that weakness, or inability to move, or delirium, or relaxed muscles, or weak heart's action, or what we call "exhaustion", are due to depression of *vital power*. It is very well to say that in this particular morbid change there is "excess of action", and in that one there is deficiency, or in all disease there is deficiency of action; in this condition, "the vital powers are depressed, and we must give support"; and in another, "the vital powers are too active, and must be restrained;"—but these are, after all, merely dogmatic assertions, which have not been supported by observed facts.

We do not know what vital power is, although we are talking of it constantly as if it varied in quantity and intensity, and we were capable of adding to or taking from it. It is, therefore, much better to say that a patient is low or weak, than to say that he is suffering from a depressed state of the *vital powers*. The former asserts a fact; the latter enunciates a theory. We talk of excess of action, and diminished action, before we have agreed as to what we mean by the terms.

"Vital actions" and "physical actions" are, without doubt, constantly occurring in living bodies; and yet our knowledge of these two classes of actions is so very imperfect, that a very large number of philosophers in the present day maintain that the changes occurring in living beings do not differ in their essential nature from changes taking place in inorganic matter. But we, who are daily watching the changes occurring in the highest of living beings in health and in disease, feel quite convinced of the existence and activity of some power different in its essential nature from ordinary force. Life is not mere "direction" or "guidance"; nor will the view that the elements of matter arrange themselves in certain forms and compounds by accident, or according to the conditions under which they are placed, explain the phenomena. We feel compelled to acknowledge a peculiar power in living matter distinct from any forces in the inorganic world. Of this power we see the results; and we are content to call it *vital power*, in contradistinction to the purely chemical and physical actions which also occur in living beings.

In cases of exhausting disease, we all talk very freely in these days of the importance of support; and many physicians would regard alcohol as the most valuable of all kinds of support given. Yet in these very cases the patient, in spite of all the sustenance, loses many pounds in weight in the course of a few weeks or even days; nor is it possible by any known means to prevent this result. And it is a fact that, in many of the worst cases I have seen, although the stomach seemed to do its work perfectly, and the quantities of "nutrient matter" and alcohol consumed by the patient were very great, the emaciation was extreme. The patient, under these circumstances, lives long enough to become extremely emaciated. Such emaciation would not exist if the patient were left to nature, because death would occur before matters had proceeded to this extremity. Now, in many of these cases, I feel confident that the stimulant is really the agent which has kept the patient alive; for it sometimes happens that patients will not take any form of nutrient; and not unfrequently the stomach will bear whiskey or brandy, and in large quantity, where it instantly rejects beef-tea, milk, and other "nutritious substances". From what I have observed, I think it possible that a patient suffering from low pneumonia, or from a very severe form of continued fever, or acute rheumatism complicated with pericarditis and pneumonia, might be kept alive until the disease subsided by alcohol alone. The alcohol does not nourish the tissues; and it is very questionable if it diminishes the waste of the tissues in these cases, for in some the waste is indeed extreme. But the patient lives; and we

account for the result by concluding at once that the alcohol must be a "supporter of life". But alcohol, administered in the very same quantities in the healthy state, might destroy life.

There is not a more important question in medicine than the action of alcohol in disease; for, while it has been conclusively proved that it is not a food and does not directly nourish the tissues, there cannot be the slightest difference of opinion among practical men as to its value as a remedy. We differ widely in our views as to the extent to which alcoholic treatment should be carried in a given case, but every one agrees as to its importance. This question of quantity will be considered in the sequel.

I propose now to discuss the mode of action of the alcohol in these cases of low disease. It seems to me impossible to ignore the chemical action of this substance. It is not possible to conceive that the large quantity of alcohol taken by many of the patients does not produce some change in the permeating properties of the fluid part of the blood, or some chemical alteration upon the soluble constituents belonging to the albuminous class, besides exerting a local influence upon soft and rapidly growing cells. It probably produces other changes besides these. Undoubtedly, in the normal state, alcohol affects the nervous system; but, in extreme cases of low disease, the nervous phenomena appear precisely as in health; and, in many cases, so little is the ordinary action of alcohol manifested, that a patient may be taking an ounce of brandy every hour, and a bystander would not believe he was taking alcohol at all. That alcohol will produce delirium in health, and remove or prevent the occurrence of delirium in an exhausted state of the system, is perfectly true; but the fact is not to be fully explained in the present imperfect state of our knowledge of the action of nerve-centres and nerves.

Before I consider the action of alcohol when introduced into the blood through the stomach, it is important to refer to its action upon morbid changes taking place upon the surface of the body, and its influence upon the vessels of the part; for I feel sure that the mode of action is essentially the same in both cases.

If there be a little abrasion of the cuticle, around which the skin looks red and angry, the neighbouring tissue being hot, swollen, and painful, the capillaries so distended as to produce bright redness, it will be found that the occasional application of a drop of alcohol to the affected part will in the course of a single hour produce great changes. In and around such a spot, it is quite clear we have, not diminished, but increased action. Numerous small granular "cells" are multiplying rapidly in the deep layers of the cuticle. The "nuclei" of the nerves, capillaries, and connective tissue of the cutis, are larger than they were in the healthy state; the living matter is growing, dividing and subdividing into smaller portions, which will grow and again divide and subdivide. In the capillaries, and just external to them, are numerous white blood-corpuscles, varying in size from small points to the ordinary dimensions. These, like the living matter of the tissue, are rapidly increasing in number. The capillaries are gorged with blood, and their thin walls stretched to the utmost.

Now what happens when a drop of alcohol is applied to such a sore? Momentary pain, followed in the course of a few minutes by great relief, or complete cessation of pain, and diminished vascularity.

But how does the alcohol bring about such changes? If alcohol be added to any serous fluid, the albumen is precipitated. If delicately granular cells are placed in alcohol, and afterwards examined under the microscope, every one knows that they will appear shrunken, and will have altered much in form; and they would resist disintegration by pressure to a greater extent than they

did before. The surface of the wound is covered with a dry crust produced by the hardening effects of the alcohol; and some of the rapidly growing cells are quite destroyed, while others become surrounded with an envelope of hardened matter, which prevents the possibility of their absorbing nutriment and giving rise to new cells so rapidly as before. Not only so, but the permeating power of the nutrient fluid itself is diminished by the tendency of the alcohol to coagulate it. The most superficial of the cells, composed entirely of germinal matter, would be destroyed by alcohol, though not so quickly, perhaps, as by the actual cautery, nitrate of silver, sesquichloride of iron, sulphate of copper, etc.

Next comes a more difficult question: How does the alcohol cause the vessels of the inflamed part to contract, and permit the flow of less blood through them? If you press upon the distended vessels of an inflamed part, as is well known, the blood is driven out of them, and the skin becomes quite pale; but the moment the pressure is withdrawn, the redness recurs, and exhibits precisely the same tint as before. From this it is clear, not only that the capillaries are distended, but that the calibre of the small arteries through which the blood is distributed to them is much larger than in the normal condition. Besides this, the simple experiment proves that the vessels are maintained for a long time of a given calibre. Such a state of things can only result from the influence of nerves which govern the calibre of the small arteries; and thus the quantity of blood permitted to flow through them in a given time is regulated and varied from time to time. The mechanism is such that a small artery is made to assume a different calibre, although this may be momentarily altered by artificial means. I have shown, contrary to the statement of Kölliker, that all the small arteries are abundantly supplied with nerves, and that nerves also ramify in the tissues external to the capillaries.

These are the two kinds of peripheral nerve-fibres which take part in regulating the supply of nutrient pabulum to every point of every tissue in the body.

1. The nerve-fibres distributed to the coats of small arteries and veins which ramify amongst the muscular fibres, and are *efferent* or *motor*.

2. The nerve-fibres distributed external to the capillaries, and in tissues which are altogether devoid of capillaries, are the *afferent* or *excitor* branches connected with the centres from which the vaso-motor nerves arise.* (See specimens of fibrous tissue, cornea, palate, and skin of frog.)

Now, any alteration taking place in the nutrition of the tissue-elements external to the capillaries must of necessity influence these excitor or afferent branches. The fibres may be subjected to increased or diminished pressure, to the influence of an increased or diminished quantity of fluid; and their numerous nuclei will necessarily be exposed to the same conditions as the nuclei of adjacent tissues. In the inflamed tissue, these "nuclei", like the nuclei of the tissues around, would receive more pabulum, would grow faster; and where growth and increase of living matter are most active, the particular action or function of the tissue is least manifested, because the function results from changes in matter which has been already formed. Hence it is not when nerves are *growing* that we find nervous action remarkably developed, but when they *have grown*. So here the nerves are less active than in the normal state, and we have dilatation of the vessels. A farther development of the same changes will lead to paralysis, and ultimately to complete destruction of the normal tissue.

Let me now consider what is the condition of things in pneumonia. The air-cells of the lung are filled with multitudes of living actively growing cells, which absorb

* Those branches have been demonstrated by me in many tissues, and form a new system of nerve-fibres, not previously described. (See *Archives*, No. XIII.)

a quantity of nutrient pabulum; and probably, as these cells increase in number, an increased proportion of pabulum is diverted from all parts of the body to the focus of inflammation. We know that a determination of common salt takes place to this spot; and it is only reasonable to infer that other matters are absorbed here, instead of being devoted to the ordinary changes occurring in the normal state. (*Med.-Chir. Trans.*, vol. xxxv, 1853.)

I have already spoken of the pabulum which in a fluid state transudes through the walls of the blood-vessels, and feeds the cells which lie just outside them. Not only are the capillaries more readily permeated by reason of the stretching and consequent thinning of their walls, but the fluid in the blood-vessels possesses a greater tendency to permeate animal membrane; so that it would seem but reasonable to consider if anything can be done to diminish this by altering the character of the fluid itself.

Many of the so-called tonics have the property of coagulating albuminous fluids and solutions of extractive matters. Preparations containing tannin, the mineral salts, such as the sulphate and sesquichloride of iron, nitric and hydrochloric acids, and a host of other remedies that will occur to every one, possess this property, and render solutions containing these and allied substances less permeable, perhaps by increasing their viscosity. The favourable action of such remedies is probably due to their direct influence on the fluid constituents of the blood. They, no doubt, also diminish the rate at which blood-corpuscles are disintegrated, and at the same time they tend to render the walls of the blood-vessels less permeable to fluids.

But, of all remedies, I believe alcohol acts most rapidly in this way, and in these particular cases most efficiently. The properties alcohol possesses of hardening animal tissues, and of coagulating albuminous fluids, are well known; and these properties must not be forgotten when its effects in the animal body are discussed. Of course, when absorbed by the blood, it does not actually coagulate the albuminous matters; but it probably renders them less fluid, and reduces their permeating property. Alcohol interferes with the disintegration of blood-corpuscles; and in cases where this is going on very rapidly, and where fluid is passing through the walls of the vessels in considerable quantity, in consequence of the walls themselves being stretched and too readily permeable to fluids, alcohol is likely to be of service; but where these changes are occurring very rapidly, and the patient's strength is fast ebbing, it may save life.

We may, therefore, explain the beneficial action of alcohol without assuming that it is a food, or contributes directly to the process of nutrition. Nay, though it merely filters through the blood-vessels, and leaves the body by different excretories as fast as it is introduced, we can account reasonably for the good effects we observe.

It might be asked, upon the theory I have ventured to propound: How is it that the alcohol acts upon the morbid, and not upon the healthy structure? But the question has, in fact, been answered already. The healthy cells, being surrounded by a thick protective covering (cell-wall), are not affected by it; while the morbid cells, growing so fast that time is not allowed for the production of a hard external envelope, undergo the changes already described, and are caused to increase more slowly, while many are destroyed. So that, in the growing cells in the air-cells of a hepatised lung, there is no deficiency of vital power; and the remedies which act favourably really seem to act, not by increasing vital power, but by diminishing the rate at which vital changes are proceeding—in fact, by causing cells which were living too fast to live more slowly, and by producing the death of many.

This view of the action of alcohol accords with many broad facts familiar to all. It accounts for the shrivelling of the hepatic cells, the shrinking of the secreting structure, and the increased hardness and condensation of the entire liver, which result from the continual bathing of the gland-structure by blood loaded with alcohol. It accords with the gradual shrinking and condensation of tissues which occur in persons who have long been accustomed to excess. The tendency to increased formation of adipose tissue which occurs in persons who live generously, and seems to be augmented by alcohol, may be explained upon the same view, and the stunting in growth which follows its exhibition to young animals is readily accounted for.

It is most important, but in some cases very difficult, to determine the exact amount of stimulant that ought to be given; but even here we have very positive data for our guidance; and the general inference is, that a little more than the exact quantity absolutely necessary does no harm. I need scarcely say that in slight cases of fever, pneumonia, etc., no stimulant whatever is required; and that I am now discussing the action of alcohol in very severe cases of disease only.

1. In what appeared hopeless cases, as much brandy as the patient could be made to swallow (an ounce and a half to two ounces in an hour) has been given for several hours in succession, and then as much as thirty ounces a day for several days, not only without producing the slightest intoxication, vomiting, or headache, but the treatment has been followed by recovery.

2. I would adduce the fact that a man not accustomed to drink, when suffering from acute rheumatism, complicated with pericarditis with effusion, pneumonia at the base of one lung, and pleurisy on the opposite side, has taken twenty-four ounces of brandy a day for eleven days; the tongue being moist and the mind calm during the whole time. While under this treatment, inflammatory products were absorbed, and the general state of the patient much improved.

3. I have been compelled to give a very weak child, weighing less than four stone, twelve ounces of brandy a day for ten days, while suffering from acute rheumatism with pericarditis and effusion. This quantity did not produce the slightest tendency to intoxication, or exert other than a favourable effect upon the disease.

4. I would state that, among the general conclusions I have arrived at after carefully watching more than one hundred serious cases of acute disease treated with large quantities of stimulants, are the following:—*That intoxication is not produced,—that delirium, if it have occurred, ceases, or is prevented from occurring at all in the course of the case,—that headache is not occasioned,—that the action of the skin, kidneys, and bowels goes on freely,—that the tongue remains moist, or, if dry and often brown, often becomes moist,—that the pulse falls in frequency and increases in power,—that respiration is not impeded, but that, where even one entire lung is hepatised, the distress of breathing is not increased; and it appears that the respiratory changes go on under the disadvantageous circumstances present as well as if no alcohol were given.*

The conclusion from all this is, most certainly, that alcohol does not do harm in acute inflammation; that it does not produce intoxication in persons suffering from exhausting diseases; and that large quantities (from twelve to thirty ounces) may be given in cases which appear very unlikely to recover; and the conviction is forced upon the observer that, in desperate cases, these large quantities of alcohol are directly instrumental in saving life, not by exciting or stimulating to increased action, but by moderating actions already excessive.

In this communication I have adduced arguments in favour of the following propositions.

1. That each tissue contains living matter; and that

this living matter is nourished by inanimate pabulum formed in the blood.

2. That, therefore, the blood neither *gives life* to the tissues, nor *increases* nor *diminishes* the *vital powers* of the organism.

3. That remedies and foods of various kinds may modify, directly or indirectly, the composition of the pabulum distributed to the different tissues, or may influence the rate of growth of living matter; but neither foods nor remedies have powers of *giving* or *renewing* life.

4. *Tissue itself is not living, and cannot produce tissue or germinal matter*; but germinal or living matter (1) converts inanimate pabulum into living matter like itself, and (2) becomes itself resolved into certain formed matters having definite characters and composition.

5. All living matter has the power of completely changing pabulum which comes into contact with it, and of communicating to certain constituents of this inanimate pabulum its own wonderful powers. The elements of the living matter which thus originates arrange themselves, or are arranged, in obedience to some peculiar force or power (vital); so that when at length they gradually cease to manifest these active (vital) powers, or die, definite substances result, the properties, form, and composition of which are totally different from the pabulum and from the living matter, although they contain the very same.

6. The rate of growth of living or germinal matter varies according to the freedom of access of the pabulum. The production of the peculiar kinds of formed material characteristic of the different tissues and different living beings requires *time*. It is generally a very slow process, and really *depends upon the gradual death of living particles under certain conditions*.

7. Rapid growth is always associated with a large proportion of germinal matter which is naked, or covered only by a very thin layer or envelope of thin permeable material. The production of firm impermeable formed material is always associated with slow growth.

8. If a tissue which, under normal circumstances, grows slowly, and is characterised by the formation of firm, lasting formed material, like cuticle, cartilage, or tendon, grows very fast, it becomes represented by a soft spongy structure, which contains a much larger proportion of germinal matter than the normal tissue. Hence,

9. Many morbid processes are characterised, not by deficiency of action or defective vital power, but by the increased *activity of the vital changes*—that is, a greater quantity of inanimate pabulum becomes converted into living matter. Hence,

10. The object is, in many cases of disease, not to increase, but to diminish, the vital changes—to make the tissue live, *not faster, but more slowly*; and in some cases to destroy the life of the adventitious matter altogether.

11. In external wounds, and in internal diseases where alcohol acts beneficially, the good result is in part at least due to the alcohol checking the *increased action* already established.

12. Alcohol does not act as a food; it does not nourish tissues. It may diminish waste by altering the consistence and chemical properties of fluids and solids. It cuts short the life of rapidly growing cells, or causes them to live more slowly; and thus tends to cause a diseased texture, in which vital changes are abnormally active, to return to its normal and much less active condition.

13. Alcohol may possibly cause nerves to exhibit increased activity by restraining the abnormally free access of pabulum to their nuclei (germinal matter). The nervous, like other tissues, exhibits a greater activity of function when it has been *formed*, not while its germinal matter is growing fast and is freely supplied with pabulum.

14. In "exhausting" diseases, alcohol seems to act partly by diminishing very rapidly abnormally increased "cell-growth"; and the quantity required will depend upon the extent to which these changes have proceeded. In extreme cases, half an ounce of brandy, or even more, may be given for a time (in some cases even for several days) every half hour; and there is reason to believe that, in desperate cases, life is sometimes saved by this treatment.

THREE CASES OF ARTIFICIAL URETHRA.

By I. BAKER BROWN, Esq., F.R.C.S.(exam.), Senior Surgeon to the London Surgical Home, etc.

THE three following cases which I now bring before you are very interesting, as proving that it is possible in cases where the urethra has been injured, and has lost the power of retaining urine, to give the patient an artificial urethra.

It is not at all uncommon in very bad cases of vesico-vaginal fistula to find that the urethra has sloughed away or become obliterated.

In one of the cases I am about to notice, the injury was produced by the urethra having been cut for stone when the patient was twelve years old; and there has been incontinence of urine ever since. It is very interesting, because I tried to cure her first by the old plan of simply restoring the urethra; but, though the operation was successful, so far as closing the lacerated urethra, she gained no power of retention, and I finally succeeded by stitching up the old urethra entirely, and making an artificial one under the arch of the pubes, using Mr. Harper's valuable instrument to retain the catheter.

The first case was one which is mentioned in my work on *Surgical Diseases of Women*, under the head of Vesico-Vaginal Fistula, of which it is the thirty-seventh case, at page 170. She came under my care in August 1860, having a large vesico-vaginal fistula and an entirely obliterated urethra. In her case, I closed the fistula in the usual manner, and made an artificial urethra as much as possible in the track of the normal urethra. A catheter was then introduced, and kept in for a few days; after which, the urine was drawn off every four hours.

The fistula healed nicely by the first operation; and a month after she could retain all her urine, and pass a little, but she had no power of completely emptying the bladder, nor had she up to the time when last I heard from her, and she was obliged to pass the catheter two or three times a day. I have no doubt that if I had had the advantage of Mr. Harper's instrument, which I will presently describe, that I might have made a more serviceable urethra in this case.

The second case is that which is published in the *Lancet* of June 20th, 1863, p. 689. It was the worst case I have ever seen. There was such cicatrization of the vagina, that it was only about an inch long; there was a very large recto-vaginal fistula, a vesico-vaginal fistula, and the urethra and neck of the bladder had entirely sloughed away. By various operations, I healed the recto-vaginal fistula, and then operated on the fistula in the bladder, first puncturing the tissues under the arch of the pubes with a small trocar, rather to one side of the place where the urethra should be.

It required great delicacy of operation, as there was so little tissue. I then closed the fistula, and introduced a metal catheter, which was retained in position by the following instrument, which was invented by my colleague Mr. Harper, and well made by Mr. Pratt of Oxford Street. This instrument is very simple in its construction. It consists of an abdominal belt, made with hip and back lacings, and having in its front a piece of wood

curved to fit over the pubes, and well padded on the inner surface. The belt is retained steadily in its position by two thigh straps. Upon the piece of wood just over the pubic bones is attached an upright stem of silver plate, about an inch and a half high, and carrying at its upper end a ball and socket-joint; the side of this joint is perforated, and is fitted with a screw, which regulates the pressure upon the ball of the joint, and fixes the horizontal arm in any required position. This arm is a piece of silver rod, about seven inches long, and having at its lower end a pair of broad pincer-points, which serve to grasp the catheter. The rod slides in another pair of pincers, closed by another screw, which may be termed the female part of the screw of which the rod is the male, and one end of which is fixed to the ball and socket-joint. It will be seen that the action is as follows. The belt is fixed around the abdomen, and the pincer end of the instrument lays hold of the catheter previously introduced into the bladder. It can be kept in any required position, and moved to any angle, and by means of the two screws can be fixed firmly, and the wood of the abdominal belt becomes, as it were, a part of the catheter. The catheter which is used with the instrument is a small round one, and is open at both ends, so that it can be cleaned and kept open without the necessity of taking it out of the bladder. By means of this instrument, the catheter is kept steadily in the centre of the urethra, without any dragging whatever upon the walls. It is also introduced only just within the bladder, so that there is no fear of any irritation of the internal walls. Moreover, the patient moves about in bed whenever and wherever she pleases, without any fear of displacing the catheter. It may be observed, that it is equally useful in certain cases where it is advisable to retain the catheter in the male urethra for any cause, and it prevents almost entirely the usual irritation which ensues. The action is exceedingly simple, and is much easier to observe than to describe.

After a few days, during which time the catheter was kept constantly in, the patient found that she could retain her water and pass it at pleasure; and she had also perfect control over her motions; and when I heard from her, a few days ago, she still continued perfectly well. This was a most satisfactory case, in which I succeeded beyond my hopes, but in which I should most likely have failed, but for Mr. Harper's instrument.

The third case I will give more in detail, from the notes of it kept in the case-book of the London Surgical Home by my son, Mr. Boyer Brown.

E. G., aged 18, single, was admitted into the London Surgical Home on November 5th, 1862.

History. Six years ago, she had a large stone removed from her bladder *per urethram*; it weighed $2\frac{1}{2}$ oz. 12 grains. During the extraction, the urethra was freely divided; and it was afterwards stitched up with silk sutures. For two years after she never saved any urine, but lately has been able to retain a small quantity during the day. On examination, the urethra and neck of bladder were found to be quite destroyed; and there was nothing to represent the meatus but a gaping orifice, which had not the least power of contraction.

Dec. 14th. Operation. The patient being under the influence of chloroform, and placed in the lithotomy position, I proceeded to pare the edges of the lower three-fourths of the orifice; and I then brought the pared edges together by four silver sutures, which I twisted with my fingers in the same way as I do in vesico-vaginal fistula. A catheter was introduced; but for many hours there was much trouble, owing to very free hæmorrhage, which clogged up the catheter, and prevented it acting. On the 22nd, the catheter was removed, and she was allowed to pass her own water; but she was not able to retain much.

Dec. 31st. I removed the sutures, and found the edges quite united. She was able to hold her urine for

two hours at a time when up, but not when lying down. I was in hopes that the urethra would gradually gain strength, and that eventually she would be cured; and I accordingly sent her home, but she returned in a few months, saying that she could not retain her urine as well as when she left the Home. She was, therefore, readmitted on June 25th, 1863.

July 2nd. I proceeded to operate, which I did in the following manner. She was, as before, in the lithotomy position, and under the influence of chloroform. I pared the edges of the entire urethra, and closed it with silver sutures; but I first pierced with a thin pointed knife under the pubes, a little on one side of the median line, until the knife entered the bladder. I then introduced a silver catheter, which was kept in position by Mr. Harper's instrument, and the patient was put to bed. The catheter was kept in until the 10th, never being removed, except on two occasions to be cleaned.

July 11th. She passed her urine, which at first she held only a quarter of an hour, then half an hour; and she gradually went on improving until, on July 28th, she could hold it for four hours, and pass it at will.

These cases are interesting, as showing that cases which we hitherto considered incurable can be safely and effectively treated by using mechanical appliances after operation. At the same time, it is not probable that many cases like the last will occur in future, because stone in the female bladder will not hereafter be removed by dividing the urethra, but either by dilatation, crushing, or extraction through the vagina.

PROBABLE EXISTENCE OF AN ENORMOUS CAVITY IN THE EARTH. A singular discovery has recently been made by M. Otto Struve, the Russian astronomer of the Observatory of Moscow. It was found that, upon calculating upon most rigid and exact astronomical data, the latitudes and longitudes of several of the principal points of the great Russian triangulation, and deducing thence the colatitude of the Moscow Observatory, it differed by eight seconds from the same deduced directly from the same points by geodetic methods. The result has been a careful recomparison of the positions of many points at various distances, amounting in extremes to several leagues around Moscow, deduced by both geodetic and astronomic methods; and it has been found that the plumb line at all points around Moscow, but chiefly along lines to the north and south of the city, is *deviated away from it*, the greatest deviation being produced at about twelve kilometres distance from the Observatory. It follows from this, that beneath the almost unbroken rolling plain upon which Moscow is situated, either there are mineral masses of enormous bulk and density around the city; or there are masses of extremely low specific gravity directly beneath it; or there is an actual cavity. According to M. Schweitzer, the assistant-astronomer of Moscow, this deficiency of matter, supposing it all of the mean density of the earth's superficial crust, must equal in bulk a cube whose side is one-fifteenth of a mean degree of latitude. That is, there is probably a cavern somewhere at no great depth beneath Moscow, equal in bulk to a cube of 2700 feet. Nothing is more probable, sustained as it is by the character of the subjacent formations, by the enormous caverns known to exist to the south and west in Europe, and by the fact of the great depressions or fallings in of the earth's crust represented by the Dead Sea and the Caspian Basins. M. Struve is engaged in further investigating the subject. An artesian boring, of two or three thousand feet deep, might possibly pierce into this vast Russian Hades beneath their sacred city, or, failing to do so, might elate all Panslavism with the hope that, to the north and south of the ancient capital, they possessed beneath the surface enormous banks of platina or gold, wolfram or lead, or some such heavy material. (*Chem. News.*)

Introductory Lectures.

GUY'S HOSPITAL.

DR. PAVY delivered the introductory address. He commenced by saying that the same old garment had come round for wear again. Year after year, for many years past, it had been regularly brought forward and placed upon somebody's shoulders. Not a particle of it remained that had not long since been worn quite threadbare. It had been turned and re-turned, and every fresh part in its turn had been picked out and put foremost, until all freshness had been extracted from it. The garment had this year been placed on his back, and he must endeavour to make the best appearance with it he could.

Students must place a high value on their time. Time was everything to them, and it behoved them to see that it was turned to profitable account. There was something melancholy in the picture drawn by the great Dr. Johnson in saying about time, that when we had deducted all that was absorbed in sleep, all that was inevitably appropriated to the demands of nature, or irresistibly engrossed by the tyranny of custom, all that passed in regulating the superficial decorations of life, or was given up in the reciprocations of civility to the disposal of others, all that was torn from us by the violence of others, all that was torn away from us by the violence of disease, or stolen away imperceptibly by lassitude and languor, we should find that part of our duration very small of which we could truly call ourselves masters, or which we could spend wholly at our own choice. Students, therefore, should be constantly on their guard. They would be constantly beset by thieves striving to rob them of their time. Let them beware of thief No. 1—Sleep. Sleep kept them in their beds. They were not up sufficiently early to attend their nine o'clock anatomical lecture; or, if they did put in an attendance, they did not arrive until it was half over. Such half-price attendance, as they called it—what was it? A conscience-offering. Their principle of industry was not sufficiently strong to bring them to the lecture, and their conscience would not allow them to remain away altogether. If they rose late, they would find themselves behindhand all day. Thief No. 2 was Idleness. There were those amongst the students who were scrupulously punctual in attending every lecture. They came almost exploding with eagerness for work. They rendered themselves conspicuous in the dissecting-room, and bustled about in the museum over their "bones". They were foremost in going round the wards, and were to be seen at all operations. They had stocked their rooms with books; and altogether it would seem as though they meant that the whole of their comrades should be eclipsed. But, alas! in many of these cases, the fire had been too strong to burn long. This excessive ardour vanished as the charm of novelty wore away. Such men soon began to make themselves scarce in places where they ought still to be seen; and, unless aroused by the chance of circumstances, might ultimately sink into the deplorable position of idle men. Let them not, then, be over-eager at first. Beginning quietly, they would have an opportunity of looking round them, and applying themselves in the most advantageous manner to work. Steadily advancing, they would day by day strengthen their resolution, until ultimately they became, both by habit and taste, industrious men. Thief No. 3 was the Solicitation of Friends. Those who would not work were not content with doing nothing themselves, but preyed upon the time of others. They were just going into lecture, perhaps, or had just sat down to study, when their friend dropped in upon them

with "I say, old fellow, put that aside; it's all serene; there's plenty of time; you can do it by-and-by." By resistance, they would make themselves safe from future attack. If they yielded, they would very soon see their robber again.

The lecturer pointed out that there was no royal road to learning; and though geniuses might occasionally spring up, a genius had to work like others. Besides, eccentricity was a frequent accompaniment of genius. Men giving themselves up to one particular direction became neglectful in their observance of the ordinary customs of society. But let them not think that in eccentricity there was any characteristic of genius, or that through eccentricity any one could become a genius. Although he had laid down the law so strictly as to studying, he did not wish the students to be always at work, and never to seek amusement. They were aware of what all work and no play did in the case of that renowned personage going by the name of Jack. There had been many a student who, in working for university honours, had fallen into the error of not allowing himself the necessary time the mind required for repose; and when the day of examination arrived, the mind had been so overworked, the bodily energies had become so exhausted, that the nerves had been agitated and the memory had failed, and thus he fell short of what otherwise he might have attained. He reminded the first year's students that they could not be expected to study advantageously until their resolution was their own, and they could fix and hold their attention as they pleased. A man accustomed to deep thought could so rivet himself to his point that ordinary impressions failed to make themselves felt. He did not mean to say that it was desirable for them to encourage the development of such power of abstraction. Far from it; for, in the practice of their profession, the perspective faculties had to be employed as much as, or even more than, the reflective.

The lecturer concluded with some remarks on vivisection. In connexion with this, he said the gauntlet had been so pointedly thrown down to physiologists, that it might be interpreted as evidence of weakness on their side if they did not take it up; and this was as fitting an occasion as any for the purpose. Happily for society, it might be taken as admitted that, in every well regulated mind, a feeling of horror was experienced at the unnecessary infliction of pain upon any animate being. A society, composed of benevolent and well-meaning persons, who had specially espoused the cause of the lower animals, and had, doubtless, effected the prevention of an immeasurable amount of suffering amongst them, had been exerting its influence towards repressing the performance of experiments upon living animals for physiological or surgical purposes, and few would not admit that room had here existed for interference. But because the scenes that had been described of the sufferings occasioned for the mere purpose of acquiring dexterity in operative veterinary surgery, which could just as well be effected upon the dead as upon the living animal—because these scenes had justly excited popular indignation, were all operations upon living animals to be placed in the same category, and denounced as reprehensible? Were those who undertake operations purely for the advancement of science and the benefit of the community to be held up to public odium for doing so? The lecturer belonged to the class of experimental physiologists, and he was ready to justify and defend his course. Suffering, and often great suffering, was occasioned from the pursuit of many of the sports which the gentlemen of England engage in as a pastime or amusement; and why was there no popular outcry against these? His argument, however, rested upon a totally different foundation. He accepted the challenge that had been thrown down, and was prepared to meet the denunciations of experimental physiology upon their own ground. It could not truthfully be denied that the

knowledge acquired through physiology had been the means of averting premature death and alleviating the sufferings of humanity. Would any one say that surgery, from the information supplied by experimental physiology, had not, over and over again, averted impending death and mitigated an immense amount of suffering? If physiology, then, could be shown to have already done this, was it not fair to presume that it remained capable of doing more? Were the anti-vivisection agitators prepared to take upon themselves the responsibility of restricting the progress of science, and defeating the efforts which were being directed towards enlarging our sphere of usefulness in affording relief to the sufferings of humanity? Had these persons so far espoused the cause of the lower animals, had they so far allowed their feelings to get the better of their judgment, as to deny to their own species the benefits that might reasonably be expected to arise out of extended physical research? Upon which side, he would ask, did the greatest infliction of suffering lie; and especially when it was taken into consideration that, in by far the majority of the experiments, agents could be and were used for allowing the operation to be performed without the production of pain. He loved, he said, the lower creatures; but he loved his fellow-species more. It gave him pain to witness suffering in any living being, and carefully in his experiments had he weighed the advantages likely to accrue from their performance. But he had conscientiously felt that he had been acting in the discharge of a duty for the benefit of the community; and he hoped that no maudlin spirit would deter him from continuing such a course. Let us all, he said, no matter in whatsoever position we may be placed, fearlessly discharge, to the best of our ability, that which we conscientiously believe to be our duty, and we can then have nothing to be ashamed of. Let us all have occasion to feel that we are employing, to the best of our judgment, for the benefit of the whole community, the gifts which nature has bestowed upon us, and which place us at the head of the creation.

WESTMINSTER HOSPITAL.

THE introductory lecture was delivered by Mr. CHRISTOPHER HEATH. Few men, he thought, entered at a medical school without some previous experience in the form of apprenticeship, which he believed to be fraught with much advantage when pursued under the tutelage of an able and enlightened practitioner; but he at the same time considered that preliminary general study was essential for a medical student, and therefore congratulated new students on having passed a preliminary general examination. Mr. Heath, in alluding to the subjects of the study of the first year's man, took occasion to make some remarks respecting anatomical study as pursued in the present day. He thought that anatomists were to blame for having overloaded their science with minutiae—for having separated into distinct systems the parts composing the one perfect body, and for having kept asunder far too widely surgical and anatomical relations. The student was reminded that the creature he would have to treat in disease would be a man, whom he would not be able to dissect literally to find out the malady, but would have, as it were, to pierce the tissues with his mental eye, and discover the secret mischief by his cultivated senses. External form and general physiognomy both in health and disease, were also urged upon the student's attention, and the necessity for the operating surgeon's being a thorough anatomist was illustrated by reference to the examples of Astley Cooper, Liston, and Fergusson.

The lecturer earnestly deprecated the tendency to avoid responsibility which he believed to be prevalent; and thought that the "official fear of incurring responsi-

bility," as Kinglake termed it, had invaded not only the army and navy, but to some extent the medical profession also. A proper feeling of responsibility regarding the life and death of patients was to be looked for in every medical man; but the young practitioner was exhorted not to be overwhelmed when the results of treatment proved to be unfortunate. But if thoughts like these were apt to arise in the treatment of ordinary cases, what must be the feeling of the surgeon when about to commence a complicated and serious operation? Much to be pitied, indeed, was the man upon whose shoulders this great weight of responsibility rested if he felt himself unworthy of it, or if his mind reverted to opportunities neglected and instruction despised; and therefore it was that he strongly urged upon them the necessity for thorough acquaintance with anatomy and for constant attendance in the wards and the operating theatre. And yet the most accomplished anatomist, the most skilful surgeon, could not command success. A higher Power than that of human hands alone could govern all results, and they must be content to bow before Him.

With regard to lectures and hospital practice, Mr. Heath did not ask the students, as was often absurdly done, to "live in the wards," because he knew that their time would be fully taken up with lectures, etc., except for two hours in the middle of the day, which hours should be devoted regularly to the wards or the out-patient rooms. Nothing was a better stimulus to the energies of medical officers in the care of their patients than the presence of students, and he therefore believed it to be the very best policy of governors of hospitals to foster the medical schools attached to them. The offices of clinical clerk and surgical dresser were pressed upon the student's notice as giving the best opportunities for acquaintance with practice, and allusion was made to the new regulations of the College of Surgeons requiring certificates of such appointments. Attendance upon *post mortem* examinations was also requisite, since any practitioner might be called upon to decide as to the cause of a sudden death, and his evidence might involve the lives and liberties of his fellow-subjects.

Mr. Heath, in speaking of prizes, said that class prizes had a tendency to induce the pursuit of one branch of study to the neglect of others. He cautioned his hearers against this error, whilst exhorting them to compete for the numerous prizes. He alluded also to the prizes provided by Mrs. Chadwick, the conditions of which guarded against the error he had mentioned, since they were awarded for general proficiency. The most valuable prizes offered to the students, however, were the offices of house-physician, house-surgeon, and assistant-house-surgeon, which were thrown open to all without fee; and the lecturer spoke in the warmest terms of his recollection of the tenure of similar offices by himself.

Mr. Heath next proceeded to address individually the three great classes of medical students, giving some excellent advice to each. He concluded his lecture as follows:—"And now, in conclusion, let me beg you all to be in good heart as regards your studies and your future career. We all, I suppose, at one time or another, feel inclined to despond and look at the black side of things; but, depend upon it, he who does so least is the happiest and most successful man. If the student allow himself to become despondent in his early studies, how can he ever overcome the still greater obstacles which await him? If the more advanced student shirk his final examinations, how will he ever become a practitioner? But it is as practitioners perhaps, that this 'equal mind' will be most necessary for you, since it may affect not merely your own but your patient's welfare. The man who is over-anxious unnerves himself in some degree, and is thus less fitted to take that calm view of his own affairs and of those of others, which will be most conducive to a good result; and, therefore, I

say again, be of good heart, not forgetting, however, to put your trust in Him who ruleth all things."

After the lecture, the board-room of the hospital was thrown open for a *conversazione*. Dr. Gibb demonstrated the use of the laryngoscope. Dr. Radcliffe exhibited some interesting electrical experiments; and Mr. Brook explained experimentally, the telegraphic apparatus communicating between the hospital and his residence.

ST. THOMAS'S HOSPITAL.

MR. SYDNEY JONES gave the introductory address. He commenced by referring to the different classes of hearers who were present, and expressed a hope that those who might have found it necessary at some time to avail themselves of the services of the profession would ever retain a lively recollection of any benefit conferred; and that they would ever take an interest in the realities, not the quackeries, of the profession. He was glad to see, by the presence of so many old friends, that their interest had not flagged, but that they were willing to join with the teachers in giving a welcome to those who were about to make this for some time to come their future home. The profession on which the students had entered was one of great beneficence and reputation, and by becoming members of it they at once acquired a *status* of no ordinary kind. The exalted position it at present occupied was the accumulation of ages. They should try by all means in their power to raise the exalted character it already bore, and be careful to endeavour to sustain, at all events, the high position to which they had been raised with so little cost to themselves; and to be watchful, above all, that no act of theirs should have a tendency to detract from that position. He was afraid that the profession offered no inducement to join it, except for its own sake; but it offered a pursuit which, if followed out conscientiously and with right principle, would secure for them the respect, esteem, and gratitude of their fellow-men, and would afford them the pleasures arising from a discharge of duty in the cause of beneficence. They could not but hope that their profession was only now rising into that position which it was eventually to occupy; that so soon as a higher standard of education was generally established, and had brought amongst them men of high character and noble feelings; that so soon as bickerings and petty jealousies ceased, and peace and union reigned among them, then would the profession enjoy a still more exalted position, and the rewards now offered to the soldier, the lawyer, and the divine would not be withheld.

It was important to the students that they should have a good groundwork in preliminary studies; in classics and mathematics, modern languages, and natural philosophy. The authorities of St. Thomas's School instituted, some years ago, matriculation prizes, to be awarded to entering students who proved themselves, on examination, to be the most proficient on such subjects. Since that time, the example has been followed in most other schools; and now all the licensing bodies required students to undergo literary and scientific examinations before commencing their medical studies. It had, therefore, been thought unnecessary any longer to offer these prizes for competition; but in their place it had been determined to substitute other prizes for practical pathology, medicine, and surgery, to be awarded to students of the fourth year. He would recommend them, however, not to let the preliminary studies be lost. A very little exercise would enable them to keep up a knowledge of them, and at the same time they might be made to serve as by no means disagreeable relaxation from the monotony and irksomeness of some of the earlier medical studies. The use of a

Latin Bible, Greek Testament, and a French Prayer-book, would afford a very efficient mode of preventing the accumulation of rust.

The lecturer then passed in review those subjects which were to form the materials of their building of medical knowledge on the part of the students. Dissection was the practical mode at their command for making their knowledge complete in anatomy, and the first year was the most important for such work. During the second and third years, they would be engaged in acquiring the practical part of their profession, and would, in all probability, have the duties of a clinical clerkship or dressership to perform; or they might be engaged in obstetric practice, in which case attendance on the dissecting room could not be too severely reproached. Having glanced at the formation of the human skeleton, the lecturer said it was impossible that the study of anatomy could ever lead a right-thinking and reasoning mind to the borders even of atheism. The tendency to such error was dependent upon moral rather than upon scientific causes. For who could survey the complicated machinery of man, with its variety of organs and functions, with every organ adapted to the function which it has to perform, and all the functions uniting to ensure the usefulness and happiness of man, without acknowledging the hand of a superior, intelligent, omniscient, and omnipotent Being?

The lecturer here referred to the study of comparative anatomy, which had derived of late much additional interest on account of controversies between men of high professional standing on points thought by some to be of great social importance, and on account of recent assertions having a tendency to subvert theories which had been taught, admired, and fondly clung to. The lecturers at St. Thomas's had been in the habit of teaching the vertebral theory of the formation of the skull, in accordance with the doctrines of Oken and Owen. But Mr. Huxley, following out the discoveries of Rathke and Reichert, was opposed to this theory, and protested against the notion that the skull was in any way to be considered a modified vertebral column.

He then alluded to the importance of chemistry, especially in its bearings on physiology and pathology; and, in regarding physiology, he noticed it as being essential to a correct knowledge of pathology, medicine, and surgery. In connexion with this subject, he would remind them of, and congratulate the profession on, the advances which had been made in rescuing many of the actions which occur in the human body from the stigma of what were called vital principles, and in referring these rather to the influence of physical and chemical forces; for this term vitality or vital principle had been subjected to much abuse, and had long been the bugbear of medical science, serving as an excuse for idleness and as a cloud for ignorance, and tending to arrest or retard scientific progress and the formation of general laws. The lecturer next referred to the usefulness of a knowledge of botany, chemistry, and other branches of study, and laid great stress on the intimate connexion between medicine and surgery, which, he said, could not be separated. The physician must know something of surgery, and the surgeon must have a knowledge of medicine. As important means of gaining this knowledge, he referred to the offices of clinical clerk in medicine and surgical dresser, which might be gained as prizes by diligence. In the observation of cases, he said, it was not essential that they should be numerous; for Scarpa had only fifteen beds in his clinical hospital.

After alluding to the improved means of diagnosis, and consequently of treatment, and giving some illustrative examples, Mr. Jones referred to vivisection, in order, he said, to express the indignation which must be felt in the mind of every Englishman at the atrocious cruelties which had been perpetrated in some of the veterinary colleges on the continent. Although it was

not necessary to use the same consideration as the Turks, who thought it a sin to kill a dog, had hospitals for superannuated cats, and did not venture to destroy even their vermin, but put them tenderly on the ground to be received into the clothes of the next passer-by, yet all well directed minds must recoil from inflicting any unnecessary cruelty. Surely it was not necessary, in order for students to become adept operators, that these operations should be performed on living animals; nor did it seem justifiable that experiments should be carried on simply for the purposes of demonstration, of impressing more vividly upon the mind certain physiological truths. But altogether to discountenance vivisection was quite out of the question; for it has already done much, and promises to do more, towards the alleviation of the sufferings of mankind and the elucidation of some of the mysteries of medical science.

He concluded by referring to the selection of a site for the future hospital. Notwithstanding the opposition which had been raised, the Stangate site would, no doubt, be eventually determined on. Stangate occupied a position corresponding pretty accurately with that which had been lost, and presented advantages not afforded by any other site which had been discussed. The hospital should be in a densely populated neighbourhood, of ready access to the masses, in proximity to factories and accident-making districts, and readily approachable by leading thoroughfares. The few nuisances enumerated as at present existing near the proposed site were remediable ones. He considered that at Stangate they ought to have a hospital that would rival in appearance and appliances any hospital not only in London, but in Europe; and that the opportunities of supplying the needs of the poor would be immense, perhaps not to be equalled, and certainly not to be surpassed, in any other district of London. These opportunities would be available not only to a large portion of the poor of Southwark, but to the densely populated districts of Lambeth, and to the western half of South London generally.

UNIVERSITY COLLEGE.

THE introductory lecture was delivered by Dr. J. RUSSELL REYNOLDS. After some prefatory remarks, he said it was towards clinical work that all medical study tended. It was at the bedside of the patient that medical science culminated and became an art. The "case" with which the students came into contact was, as it were, the "medium" through which "correlated forces" became exchanged; or, to alter the figure, the "reflective centre" in which all the "knowledge" they had laboriously gathered from without became converted into "power" for the patient's good. It was well, therefore, to keep that end in view, and to regard all their studies in that their high relation. The bedside of the patient was the point from which to value correctly all scientific medicine.

It was in his capacity of a clinical teacher that he proposed to address his hearers; and he accordingly proceeded to deliver a clinical lecture on students; first sketching the history of five cases, and then commenting on their pathology.

The first case described was that of the idle student, of whom the lecturer said that "while at the College, his attendance on lectures often assumed a remittent form; occasionally prolonged intermissions occurred; the intervals between his paroxysms of attendance gradually increased in length; and some curious repulsive influence seemed to become developed, not only between himself and the lecture-room, but between himself and the professor; for it was noticed that upon each period of his return he withdrew himself further and further from the professor's position in the lecture-room or

theatre." The occasional taking of notes in a book by means of pens was gradually abandoned for the making of notes and illustrations with a penknife on the benches—the notebook, too, disappearing, and becoming replaced by a walking-stick. Another fact noticed was the gradually increasing delay in his appearance at individual lectures. A chronic form of delay, too, appeared to beset him in his attendance on the hospital practice; and it was remarked, that while the periods of his return to the wards were singularly uncertain, they appeared to have some relation to lunar time, and were often synchronous with the recurrence of the days on which the names of students had to be entered in a book kept near the door. Towards the end of each session, also, the patient manifested a propensity for reappearance in the wards—the determining cause probably being the presence of an unsigned schedule in his pocket. There were some remarkable negative characters, too, in the case. He never obstructed the house-surgeons or physicians' assistants in their morning duties; never complicated the work of selecting clerks and dressers; and so scrupulously followed the rule of not appearing improperly in the area of the dead-house or operating theatre, that he either never entered there at all, or, if he did, kept himself at the greatest possible distance from the object which was being studied.

The prognosis of this case was unfavourable. Dr. Reynolds saw in it a want of patience and energy, and of consideration—a want of common honesty and of heart. The father of the patient, whom the lecturer pictured as a hard-working country practitioner with a large family and small means, "laboured that his son might learn; he had placed him in the College amongst immense advantages; his small savings scarcely met the hospital and college fees; yet, while there was stint and toil at home, he sauntered lazily about the wards and lecture-rooms, and never lightened by the effect of one little finger the great burden, some part of which his broad young shoulders should now have learned to bear."

The second case was one of a totally opposite character. It was that of a student of intense diligence; an assiduous attendant on, and voluminous taker of notes of, every lecture that could possibly be attended; one who had held the office of clerk and dresser, and was a constant frequenter of the hospital practice in all its departments. "He seemed almost as ubiquitous as he could wish to be; he was up both early and late; he gave himself no time for rest, no time for play. He was in a condition of educational pyrexia; and even when he slept exhibited a low muttering delirium of broken bones, triple phosphates, rheumatic fever, and typhoid spots."

This case the lecturer regarded as much more hopeful than the first; yet it presented some morbid features. The accumulation of material was vast; but it was confused, and therefore of little use. A fact was seized here and there; but he had not been able to bind them together. His knowledge was too superficial; what was required was, that he should not only work widely and hard, but work deeply too, even though his progress should be slow.

The next case was that of a student who had a strong predilection for chemistry. In the chemical classes in the College, he gained the highest distinction; but in his hospital practice, as indeed in all his studies, he could attend to nothing but the chemical features of what was presented to his notice; and, consequently, was ignorant of many important points. "It was said that he could tell correctly all the daily changes in each case of pneumonia, chorea, and gout, that had presented itself during the last twelve months; but that he would be puzzled to distinguish a case of pneumonia from one of bronchitis; and that there were many forms of disease of which he scarcely knew the names."

In commenting on this case, the lecturer pointed out that, unlike the preceding one, the student recognised the necessity of working deeply; but the deep working had been applied to the favourite study, to the partial (not utter) neglect of other portions of the curriculum of education.

The fourth and fifth cases were those of two brothers, who, the lecturer said, came to their college duties prepared by an acquaintance with general physics and the laws of thought. Their attendance on lectures and hospital practice was punctual and regular, and at the same time judiciously arranged. Their plan was, not to attempt to learn too much at once, but to learn that well. "They endeavoured to know thoroughly what they knew at all; they were not afraid to ask questions; and they were very successful in the advance, not only of their knowledge, but of their power to know. There was this difference between them: the elder appeared satisfied when he found a case that corresponded exactly with a book; the younger was always trying to show his brother that the book was wrong. The one was disposed sometimes to fit his facts to the ideas he entertained of what facts ought to be, and to strain them a little, sometimes this way, sometimes that, in order to make the fit complete and creditable; the other was so averse to believe that facts ever do correspond with statements, that he sometimes looked at them through a distorting medium, and imagined that there were exceptions when there were only blank spaces or wrong entries in his own information. The elder saw things that did not exist; the younger as often failed to see those that did. The one was ever trying to verify the wisdom of the past, the other to show that it failed to meet the knowledge of the present; while the former looked somewhat hopelessly at the future of our science, the latter believed that it would witness the solution of every enigma, the unravelling of every tangled skein of truth."

These two—whom Dr. Reynolds regarded as belonging to a type far from uncommon in the College—while they counteracted, yet supplemented each other, and worked together usefully. The one regarded with all his affections, and sought for with all his energy, the establishment of the uniformity of Nature's processes; the other as earnestly endeavoured in those processes to discover advance, or progress.

What the scientific worker really needed was an appreciation and combination of the two; for in nature they were both present, and might be observed. In individual life, he observed, some great processes go on in the same way from hour to hour, from year to year. There is the alternate diastole and systole of the heart; the constant play of inspiration and expiration, with their effects on air, and blood, and tissue; there is the daily change from sleep to waking, from activity to rest; there is the daily disintegration of tissue, the excretion of waste material, and also the daily assumption and assimilation of fresh supplies. Further, there are recurrences, with wondrous order, of some physical changes—partly those of health, partly those of disease—at still longer, but yet time-ordered periods; and the seasons of this year have effects like to those of the years that have gone before. But, with all this order, and as the result of this order, there is progress; the infant grows into the child, the child into the youth, the youth into the man. The changes of dentition and of puberty lead onwards to the full growth of the adult; and then, in its due time, decay comes surely on. Some diseases may appear, go through their well-known phases, observe periods that we can with certainty predict; but they have not been in that individual before, and they will not visit him again: they have done their work. All that he has passed through makes him what he now is; there has been recurrence and order, but also growth that does not return into itself. But, on looking further, we see that these things which occur in the individual

but once, which even constitute his separate life, do recur, but recur in others; and so again we see the circle, but a wider one. But is there no progress of this larger group? Families, races, nations, too, have their periods of infancy, of youthful follies, of angry passions, of wise discretion, of ease, of feebleness, and death; and while the one nation, with its own life, sinks away, another takes its place, and the great world is ever young.

Again, in physiology, in its largest aspects, we observe an onward progress amidst the orderly recurrence of events. Not merely individuals but species become extinct; new species take their empty places, and lower give way to higher forms of life. Whatever may be the theory for its explanation, there can be no doubt about the fact—that the life upon the world at this present moment has not the form it had; seeming uniformity of process has wrought out change, and that change is one of progress or advance. We do not exhaust the question of how this is, we only move it a few steps further backwards, if we admit the principle as readily as we see the facts of so-called "natural selection". If it be imagined that all the variety that now clothes the world has sprung from one common form, it must be admitted that there was in it the possibility of divergence from the type, or, in other words, that it contained within itself the germ of all subsequent development; and thus, in the only conception we can frame of primeval life, we see in its apparently simpler, but really more complex order the mainspring of advance. It is easy enough to trace life backwards until we fail to see the differences that lie hidden in some fetal form, common to all kinds of fowl, to the donkey and the dog, to the monkey and the man. But it must not be supposed that differences though hidden, do not exist. We may not be able to distinguish the one ovum from the other; and yet the difference between them is so great that one becomes the peacock, and the other the Cochinchina hen; the one a Skye terrier, and the other a learned doctor of the law. It is when brought face to face with facts like these that human science, grateful for what it is, should not trumpet forth generalisations to which it has leaped to conceal its weakness; but should show its real strength in humbling itself before great truths that are as yet past its finding out.

Again, in the yet infant science of geology, we may observe the same combination; and both order and progress may be seen combined in the history of scientific systems and of philosophic method. Their movement is onward, but it often appears to return into itself; yet it does not thus return. It is not a circle that is described, but rather, as it has been said, a widening and ascending spiral, whose ultimate course we cannot now compute. Lastly, in human life, the one kind of law, by its constant and orderly operation, develops results of another and a higher kind. The physical forces are often determined in the direction of their action by the chemical constitution of the bodies in which they are displayed; chemical actions are coordinated to produce results which cannot be expressed by chemistry alone, but require another set of terms, which are denominated vital; animal life is determined by mental conditions; the latter often yield to social and moral obligations; and they are all marvellously intertwined to produce that complex creation—a living man! How long the apparent conflict of these two elements will last in science, we cannot tell. Where is their common point we cannot see; as the circles of order widen they lose their apparent recurrence, and order and progress become, even in our own minds, one. The infinite circle is identical with the straight line infinitely produced. Our definitions fail, or contradict themselves, when we endeavour to carry them thus far; but there is no contradiction in the things themselves, and our finite minds can feel assured of the existence of some great facts that they

have as yet failed to grasp, and may be convinced of the reality of an infinite, abiding, and eternal truth, in which all truths shall centre; in which is no error—no darkness at all, but which can now be only dimly seen or felt after amid the changing and passing shadows of time.

In entering upon their profession, the students were exhorted to take high views of its vast demands as a science, and of its claims, not only upon their mental, but upon their moral nature. They must strive to learn the inner, often hidden relations of all branches of medical knowledge; but much was yet hidden, and, therefore, they must approach truth from many sides. And, lastly, in their earnest work to know the laws of life, and in their hereafter daily contact with life—at its beginning, in its troubles, and at its close—they should not, in recognising the divinely appointed order of all events, lose sight of that great divine plan of progress which will surely evolve the highest good out of much that now seems deepest evil. They would thus often see a moral purpose in the suffering they tried, but vainly, to assuage; a good in the death they feebly struggled to postpone.

Regarding disease as fraught with meaning and purpose other and higher than the mere change of organ you can see, and handle, and record, in your pathological note-book; looking on death as the fulfilling of some greater end than can be represented in the Registrar-General's returns; though often saddened, often baffled in your unequal conflict with those two great foes, you may see that they also have a work to do, perhaps more friendly than your own; and thus you will be led to feel, and that with a conviction no other profession could urge so strongly upon you, that though

"Suffering is permanent, obscure, and dark,
And has the nature of Infinity,
Yet through that darkness (infinite though it seem
And irremovable) gracious openings lie,
By which the soul—with patient steps of thought,
Now toiling, wafted now on wings of prayer—
May pass in hope, and though from mortal bonds
Yet undelivered, rise with sure ascent
Even to the fountain-head of peace divine."

QUEEN'S COLLEGE, BIRMINGHAM.

THE introductory address was delivered by Mr. FURNEAUX JORDAN. The lecturer, after some introductory remarks, said that the subject which he had chosen for consideration was, the elevation of medical science in the estimation of society. The estimation, he observed, in which medical science was held by the public varied with every class and with every individual. The capability of forming an opinion differed; the criteria on which opinions are based differed; and, therefore, opinions themselves differed. All the varieties of opinion, the causes of the varieties, their justice and injustice, their truth and error, might, with sufficient precision, be placed under the categorical head unsatisfactory. How, then, should medical science attain a higher position in public esteem? There were particularly two principles of action. First, Society must be enabled to form a judgment of the true value of medical science. For this purpose, a certain amount of medical knowledge (especially physiology) must form a part of every system of education. Second, Medical science must be still more zealously advanced; rendered, in short, more worthy of public esteem and confidence. It was a fact everywhere conceded, that with singularly few exceptions the public had no knowledge of medical science; hence, public opinion in this direction was vague, capricious, and valueless. If a person totally ignorant of astronomy formed the opinion, on grounds best known to himself, that there would be an eclipse of the sun next week, or that a comet would appear next year, it was absurd to ask what value his predictions would

possess. It was not surprising that men otherwise of education and intelligence, could form no just estimate on questions of health and disease, simply because their education had not included even the simplest rudiments of physiology. In the presence of this great ignorance of physiology, how was it possible even to guess at questions of disease?

The eminently unsatisfactory position of medical science was due to ourselves. Had we as a body encouraged the pursuit of medical learning by the lay public? Had we represented to Government Boards the desirability of teaching physiology in all national schools and colleges? Had we so exerted our influence that in any single system of education the doctrines of the science of life were taught—a science the rudiments of which might wisely be taught to every boy and every girl? Did those of our body who had learning and ability give popular lectures on physiology or pathology? Did the members of our profession, as a rule (he knew that a few did), explain to those most interested as much of the physiology and pathology of the given disease as admitted of popular illustration, and thus diffuse—better than none, better than lies and quackery—rude ideas of the normal and the abnormal in our physical organisation? Did we greet with thanks or respect any attempt to write for the people? In asking this question, he did not allude to works on what was foolishly called "domestic medicine", because to attempt to explain diseases to persons ignorant of healthy processes was as premature and foolish as would be the attempt to demonstrate the principles of the differential or integral calculus to youths unacquainted with the simple rules of arithmetic. He knew nothing in all the varied problems of life, or society, or history, more calculated to astonish, if not to alarm, than the modern ignorance of physiology. And yet what question was there in moral, intellectual, political, or social science, so momentous as the ignorance of sciences which explain how we live and act, and droop and die. Moreover, a physiological public would require an increasingly high standard of education in the medical profession. Thus, by a salutary reaction, the physician and the surgeon would reach a higher grade of culture, and acquire a stronger power to benefit the human race.

There were indications, however, that in this all-important matter a new epoch was about to commence. A few of the largest and most active minds of modern times had deemed the structures of the human body and their actions worthy of the protracted research of the loftiest faculties. Anatomy, comparative anatomy, physiology, and natural history, had been on rare occasions the favourite studies of poets, philosophers, and historians. The lecturer referred to the examples of Goethe, Lewes, Kingsley, and Buckle. Mr. Buckle not only fully acquainted himself with physiology, anatomy, and chemistry, but he passed on into the larger and more difficult field of pathology—a field where the processes are so mysterious and the problems so abstruse that the ablest minds of unnumbered generations yet to come will be required before nature shall have been compelled to disclose her inmost secrets. With beacons so illustrious before them, and with the assistance and encouragement we ought to afford, he did not doubt that the public would discover for themselves the precise value which attached to modern medical science. The sooner this occurred, the better for us and the better for society.

There were still other important signs of increasing interest in subjects intimately connected with medicine. Such were the greatly increased use of the microscope, the amazing zeal with which natural history was everywhere cultivated, the widely spread and keen interest which was taken in the question of the origin of species, and the physiology and anatomy of geology, and the publication of excellent serials for the diffusion of sci-

ence and the simplification of scientific difficulties. Such were the *Popular Science Review*, the *Intellectual Observer*, the *Social Science Review*, and others.

In passing to consider the second proposition, the desirability of still greater zeal for the advance of medical science, Mr. Jordan would by no means be understood to imply that progress was slow; and in proof of this he gave several examples. The realisation of past achievements was an admirable stimulus to future enterprise. It was wiser, however, to dwell not on what has been done, but on how much has yet to be accomplished. In reply to the question, how might future progress be most efficiently secured? he suggested that the task of increasing our knowledge should devolve on a larger number of individuals. It was everywhere, and at the present time, a just ground of complaint that the work of our learned societies and scientific journals falls on a few. How was this to be obviated? It was first of all requisite that young men should not study simply to obtain legal qualifications. They must be taught to regard themselves as students for life—perpetual students of a science which marches on for ever. He believed that the student who had already satisfied the law might be made an unceasing student most effectively by making him a teacher also, a teacher of the public, or of those intending to enter, or of those who have already entered upon the study of medical science. The vocation of the future medical worker would be not merely to remove disease, but to teach men how to live, how to give to physiological action its most perfect freedom, how to secure for it its most favourable conditions, and to communicate to others the great secrets of organised nature. Why should not medical science be taught everywhere? If it were desirable that the larger seats of medical learning be located in the larger towns, there was no just reason why preliminary and most useful schools should not be established in every town, almost in every village. These smaller centres of medical education might be so arranged that every member of the profession should have the opportunity of feeling that he was one of a band devoted to the great work of diffusing and advancing medical knowledge. An eminent thinker had drawn forcible attention to an important means which was essential to the progress of all science; it was especially applicable to the science of medicine. The means to which he alluded, was a systematic and complete disregard for authority. All progress was preceded by inquiry, and all inquiry was preceded by doubt. A golden maxim, at least for a medical labourer, was—doubt all things that are not proved. By this means alone was the growth of proven knowledge secured. For only doubters originated, only doubters advanced, only doubters annihilated doubt. The most thoroughly efficient means, however, by which any science was advanced lay in the perseverance and zeal of the individual workers.

Mr. Jordan concluded with a few words of advice to the new students, whom he exhorted not lightly to enter on the study of medicine—not unless they had an almost passionate ardour for science, for the study of its laws, for the desire of its progress; not above all, unless they had well considered that the mysteries and the organisations of this life were worthy of the exercise of the highest faculties which men possess.

LONDON HOSPITAL.

Mr. MAUNDER delivered the introductory address. He regarded the first of October as a day of peculiar interest to the medical profession in this country. Old and young met together on the same benches, the former to shake hands with old friends and fellow students, to chat over the pleasurable recollections of earlier days, and probably to introduce a son to the well-remembered

walls; the latter full of hopes and fears, freed from the discipline of school, and eager to commence the great work of life. It was to the junior members of his audience that he more especially addressed himself. To them he offered a hearty welcome, and gave some excellent advice and encouragement to those who were entering the profession. He advised those who had passed their examinations to travel if possible, and pointed out various methods by which in so doing they might derive both pleasure and profit. As a mental recreation, they should cultivate general literature to enable them to associate with all classes of society. Travel and reading would enlarge their views, and give them liberality of sentiment and manners. Let the student cultivate easy and agreeable manners, which were quite compatible with sincerity, and avoid any eccentricity either of dress or otherwise, which might offend society. He should be kind and courteous to his patients, but withal independent, never forgetting that he who possesses no self-respect has no right to exact respect from others.

In speaking of the army medical department, Mr. MAUNDER expressed his surprise at the treatment to which it was subjected, and at the short-sighted policy of the government. He was astonished that the combatant officers did not know their own interests sufficiently to lead them to encourage well educated men to enter the service.

The lecturer then alluded to a subject which had for some time occupied his mind (they might call it a crotchet if they liked)—he referred to the distinction between physician and surgeon, the “pure” physician, and the “pure” surgeon; the hospital physician, and the hospital surgeon. What was meant by the term “pure?” It implied, he presumed, that the individual purposed to practise either medicine or surgery only, and to qualify himself to take a high walk in his profession. All his abilities were concentrated upon the study of the one branch, without a commensurate and progressive knowledge of the other. It was true that during the first years of his professional life he had studied medicine and surgery equally, but his hospital appointment compelled him to give the preference to one or the other, and thus while his opinion was valuable in the one case, it was of little worth in the other; and it was upon these grounds that he held the physician to be unqualified to give a sound opinion in a surgical case, and the surgeon to be incompetent to take a right view of a medical case. He was of opinion that the consulting physician or the consulting surgeon who took all fish that came to the net, who considered all patients who could pay a fee as belonging to his speciality, did a great injustice both to the patient and to his brother practitioners, to whom custom and education assigned the care of individual cases. It appeared to be sufficient for a medical man to be thought clever, no matter whether physician or surgeon, and the public was eager to consult him in every imaginable case. Such a step taken without the advice of his usual medical attendant by an individual was consequent on unavoidable ignorance; but were they to take advantage of that ignorance, and perhaps jeopardise the health and life of a fellow-creature? Certainly not. It was their duty to refer the patient to the right man, to exercise those virtues which the practice of their profession taught—benevolence and charity. It would, perhaps, be said that it was useless to expose an evil without having a remedy to meet it; the antidote was within the grasp of the individual practitioner, and its application too. There was, probably, one means—the only one that had occurred to him—by which the public might be assisted in the selection of a physician or surgeon. It was that the consulting surgeon should emphatically declare his calling by replacing the “Mister” now before his name by the word “surgeon” both on his door-plate and private card. This object might be slowly attained, and the moral courage of individual practitioners

in refusing a fee would be often tested. In Dublin it was usual to see on the door-plates, "Surgeon So-and-so;" why should not the example be followed in this metropolis.

Mr. Maunder concluded by reminding his audience that the study of medicine, if pursued in a right spirit, was such as to fill their minds with wonder and admiration at the power displayed in the creation of man. Surely no profession could be more honourable than the medical, except that great profession whose ministrations were not physical and whose influence did not cease with the term of our brief mortality.

CHARING CROSS HOSPITAL.

THE introductory address was delivered by Mr. C. W. HEATON. He commenced by remarking that any day which divided into time the brief span of our lives must needs be a memorable and even solemn one ever afterwards. The 1st of October was so felt by medical men. The oldest and wisest so felt it, and so quite equally must those upon whom its sun had not yet set. The student could not be unmindful that to this day he would in future years look back either with pride as to the day which had opened to him that career which had brought him comfort, independence, the grateful love and respect of his fellow men; or with bitter shame, as he thought of opportunities wasted and time mis-spent.

The lecturer regretted that, not being a medical man, he could not venture to speak technically of the nature of his hearers' studies, or of the professional cares and duties of their future lives, but observed that it gave him an opportunity of speaking more freely than he could otherwise have done of the universal respect with which the members of their profession were regarded by mankind. And well, indeed, was that respect earned. Medical men had the best reason to pride themselves on the general unselfishness of the members of their profession. The solemnity of their trust, and the awfulness of the responsibility involved in it, rarely failed to raise the intellect and expand the heart of him to whom it was confided. Without venturing to assert that as a general rule doctors disliked fees, it might safely be said that the earnest endeavour, the errand of mercy, was not limited or measured by those fees; but that like God's rain it descended alike on the just and the unjust, on the rich and on the poor. It was to be hoped that this lofty character of the profession would never be lost; but that every doctor, in building up his fortunes, would take care that the foundation-stones were his duty towards God and his duty towards his neighbour. No better wish could be offered to a student than that during his life he might work hard, do his duty, and, when need should be, die bravely—

"In some just cause, not in thine own,
To perish, honoured, wept for, known,
And like a warrior overthrown."

The student must not disguise from himself at starting, that his education must be a most difficult, complicated, and comprehensive one. Beside the regular branches of education, there were others which no reading and no teaching could supply. They must learn to read men's characters, must often humour their weaknesses, keep their secrets, and soften their fears. They would have to warn the sufferer of the near approach of death, and as far as in them lay comfort the fatherless and widows in their affliction. After quoting an eloquent passage from Thackeray's *Pendennis* on their lofty duties, the lecturer proceeded to console with his audience on the recent loss which they, and indeed the whole profession, had sustained in the death of Dr. Golding, who had been the chief means of founding their hospital, and

for thirty years had laboured unremittingly for its advancement.

The rapid rise in the character and manners of medical students within the last few years was next passed in review. The strange animal described in the writings of Dickens and Albert Smith could now nowhere be found. He eschewed collars and hated clean linen; his hands were dirty and gloveless; he breakfasted on raw brandy and full-flavoured Cubas; and amused himself when in church by carving his name in big letters on the pew. These things had gone by, and a man who should now indulge in them would be reckoned by all his companions as a blackguard. It was, indeed, hard to fancy that some of those grave, well-conducted gentlemen who now alighted from neat broughams at our doors, might in early life have belonged to such a wild harum-scarum family. Much of this change might be traced to the higher education now required in a medical man, which, in the generality of cases, excluded all but gentlemen from the profession. In place of the wild dissipation of the past age, there were plenty of healthy amusements, which, so far from hindering a man, would enable him to work the harder. A good pull on the river, a ten mile walk, or a stiffly-contested game of cricket, would send any man home to his work with cleared brain and cleansed fibres. It was to be hoped that the time would come when Charing Cross men would be equally celebrated for their success in examinations and for the scores they made at cricket.

Coming to more serious subjects, it was to be remembered that the great point on which success depended was diligence. The habit of steady and continuous attention to lectures was hard to acquire, and the temptation to allow the thoughts to wander was very great; but the advantages to be gained by perseverance were marked. There were certain necessary inconveniences incident to all teaching by lecture. The various lectures succeeded each other so rapidly in a day, that it required great practice to prevent the different subjects from being confused together in the mind. Then it often happened that the student who missed a lecture missed the key to a good deal of what followed, and the subsequent lectures became in this way unintelligible to him. This might be remedied to a certain extent by reading up the subject in a hand-book; but it too often happened that everything was neglected. Besides the systematic course of regular attention to lectures, and careful study of the subjects of them in the evening, the student might, if he pleased, adopt a different, though a far inferior, plan. He might take up vigorously with a branch of study, and neglect for a time all others. Then, discarding this first love, he might take up something else; and, in this way, he certainly would at last acquire a smattering of each subject; but this would be in exchange for the clear and satisfactory knowledge of it which he might have obtained by greater regularity.

Referring to the study of anatomy and physiology, chemistry and botany, Mr. Heaton observed that, at first sight, the student would probably perceive but a very slight connection between them. But as he advanced, he would find that they, like all other branches of physical science, were united together by the closest bonds, and that no one of them could be pursued without constant reference to the others. Certain constantly recurring facts were observed, in which nature seemed never to vary; and although we knew nothing whatever of the cause of these facts apart from the first great cause, yet we were able to trace, to some extent, the modes of their operation. Now, these laws of nature pervaded all sciences alike. If, for instance, they had studied the so-called laws of chemical affinity, they would find in botany that the assimilation of food by the plant, and the formation of starch, sugar, and woody fibre, were all instances of their action. In geology, the

case was the same; and even in astronomy, where, at any rate, we should have expected to be free from chemical sway, we found that she had lately planted a promising colony. It was in physiology, however, that this dependence of different sciences upon one another was most strikingly seen. The lecturer suggested as the most probable road to discovery the careful study of chemistry in its relation to physiology; and dwelt on the importance of the recent discoveries of Graham in liquid diffusion.

But, in spite of the interest and importance of science, they must not forget the great object of their lives was not to become scientific men, but doctors. After their first year, they would be called upon to bend all their energies to the attainment of this great end. Without entering into many of the details of the studies they would have to pursue, one point would be clear to all. The great guide and instructor of every man must be experience.

Mr. Heaton pointed out the important benefits which modern science had conferred upon medical practice. The essential importance of pure air and water, with the increased attention which the knowledge of it had attracted to ventilation, drainage, and the purification of our rivers, formed a remarkable illustration of this. And the improvement which had been effected in these respects was very remarkable. We could no longer point, as Pope did,

"To where Fleet Ditch, with disemboguing streams,
Rolls the large tribute of dead dogs to Thames."

The Thames itself was being purified, and optimists told us that the time was approaching when the stranger should come from afar to slake his thirst with the clear pellucid waters of the ancient river.

In speaking of experience as the great medical guide, the lecturer did not mean to recommend an absolute and undoubting trust in empiricism. On the contrary, the opinion of an experienced medical man was a highly composite one, formed from a hundred small observations, and the result of an almost infinite knowledge. Precedent, with all its force, was but an element in that opinion, although, probably, in all cases, the most important one. The most perplexing of all the difficulties with which a medical man had to deal arose from the marvellous connection between the body and the mind. Our consciousness taught us that the qualities of reason, fancy, understanding, and will—not to speak of the lower appetites and passions which we hold in common with the brutes—were in some inscrutable way bound up with our frail tenement of flesh, and that, for some mysterious reason, the cessation of the peculiar chemical and mechanical processes which constitute physical life, involved the arrest of the mental operations. We knew no more. We were powerless to explain the nature of the tie which bound them, and must be content with the conviction that, spite of the temporary association, mind had a separate existence apart from and above matter. The practical knowledge which could be gleaned on this interesting subject resolved itself into observations on two points: the influence of the mind over the body, and the influence of the body over the mind. From the attentive study of these problems, physicians told us that many valuable precepts might be gained, and they were, besides, interesting from their connexion with some of the great unsettled problems of the age. Under the latter head might be included the important question of moral accountability, with its train of considerations on the amount of physical disease which might deprive a patient of the power of controlling his actions. The lecturer concluded by exhorting his hearers not to be content with anything short of the greatest attainable perfection, and by assuring them that their happiness and welfare would always be objects of the greatest interest to their teachers.

British Medical Journal.

SATURDAY, OCTOBER 10TH, 1863.

THE INTRODUCTORY ADDRESSES.

OCTOBER has again returned, and has again brought with it the day long to be remembered by hundreds of youthful and hopeful minds—the day on which they commenced to receive systematic instruction in the healing art. The Æsculapian temples of the metropolis and of the great towns of England have been opened; and their high priests, selected to officiate on the occasion, have welcomed, in choice words of encouragement and of advice, the novices who seek to be initiated into the mysteries of medicine. This is a fitting commencement to the great work which is about to be undertaken both by the teachers and by the taught: it demands "earnest words", as Schiller has it.

"Zum Werke, das wir ernst bereiten,
Geziemt sich wohl ein ernstes Wort;
Wenn gute Reden sie begleiten,
Dann fließt die Arbeit munter fort.
So lasst uns jetzt mit Fleiss betrachten,
Was durch die schwache Kraft entspringt;
Den schlechten Mann muss man verachten,
Der nie verdacht, was er vollbringt.
Das ist's ja, was den Menschen zieret,
Und dazu ward ihm der Verstand,
Dass er im innern Herzen spüret,
Was er erschafft mit seiner Hand."

For this year, the earnest words fitting to the occasion have been spoken with eloquence. May their effects for good, on those to whom they have been addressed, be universal and lasting!

Introductory lectures, however, in the present day, are not made up merely of good advice to students as to their demeanour as gentlemen and Christians during their pupilage, or as to the course which they should follow in regard to the objects of study placed before them. Dr. Pavy has spoken of the duty of delivering an address as an old garment, turned and re-turned, and periodically brought out, so that it has become at last difficult to discover a fresh part and put it foremost. So it would be, if the addresses were entirely made up of the material—good advice for the especial benefit of the students. But lecturers have come now to look on the first of October as an opportunity for giving vent to sundry and various of their thoughts *de re medicâ*; and hence it is now not uncommon to find the introductory lectures consisting in great part of commentaries on medicine in all or any of its aspects—as it is taught to and learned by the student, as it is practised by him who has received a legal qualification to do so, in its relations to the state, and to the public. The occasion, indeed, is held to be a fair one for descant-

ing on any subject whatever having a medical bearing, that has agitated or ought to agitate the professional or the public mind.

Of one of the primary and most important objects of these addresses, that of pointing out to the students the moral duties devolving on them, there is no need for saying much. The responsibilities of those entering on the study of the medical profession have been truthfully laid before them. This only we will say: that the magnitude and solemnity of the duties devolving on the students have happily for some years been more generally recognised by them than was wont to be the case in times past. Of the classes so facetiously but ably described by Dr. Reynolds of University College, the first, never the true type of the student, but once common enough to appear as a type to novelists, has now become the rare exception. As another lecturer (Mr. Heaton) said, the practices once followed by such men had gone by, and "a man who should now indulge in them would be reckoned by all his companions as a blackguard." How has this change been brought about? It cannot be altogether the result of the moral advice given in the introductory lectures; for such advice has always been given. We rather agree with Mr. Heaton, that "much of the change may be traced to the higher education now required in a medical man." The medical learning of the present day is so varied in its details, and requires so great application for its mastery, that no student having a grain of "honesty or heart", or hoping to become competent to hold a respectable position among his fellows in the profession, can possibly devote his days and nights to idleness and dissipation, in the confidence of being at last able, by a spasmodic effort and by the help of a "grinder" to master a sufficient show of knowledge to satisfy an examining board, or, having passed that ordeal, to gain that estimation among his profession and among society which an honourable and competent practitioner of medicine deserves. There is one other agency, too, which we would suggest as having been effective in this improvement of the *morale* of the medical student. There have long been, in every medical school, students who have understood the earnest nature of the work before them, and have acted accordingly. May it not be, that their good example has gradually acted as the leaven on the masses surrounding them? The old proverb, that "one black sheep infects the whole flock", is capable of being sometimes read with a more favourable meaning.

The deliverers of the introductory addresses have, then, not had to deal so much with men who require goading and enticing to their task, as with men earnestly bent on their duties; and hence it will be found that a frequent theme in the addresses has been to show how the student should set about his work. Advice on this point is not more than necessary; for

every one will recognise the four classes described by Dr. Reynolds, of students having a conscientious appreciation of their duties, yet seeking to do their work in divers manners, some positively faulty, and none absolutely perfect, however commendable in design and in result. It is, as Mr. Henry Lee well put it, the variety of subjects of instruction, and the number of facts contained under each subject, that perplex and even terrify at the outset, and either cause them to exclaim, "It cannot be done"; or to act in the manner of Dr. Reynolds's second case—laboriously accumulate facts without giving themselves time to discover their bearing on each other or on the science of medicine; or again, perhaps more rarely, to devote attention to some one department, to the comparative neglect of others of at least equal importance. More than one of the lecturers disapproved of the plan of attempting merely to study medicine as made up of a mass of isolated facts, and of treasuring up in the memory each of these without perceiving the mutual connexion between certain of them. Dr. Reynolds, as we have already noticed, pointed out the disadvantageous position in which the student who attempts this course is placed; and Mr. Henry Lee, too, specially insisted on the advantage to the student of endeavouring to recognise general principles, and of making each observed fact an illustration of some such principle, which would connect the fact in the mind with others of a similar character.

On one subject, however, connected with this topic, we must make a remark—the number of lectures which the student is required to attend. It is true, that the number has been reduced by the examining boards below what it was some years ago; but it is still a fair question, whether the number of obligatory courses be not still too many to be useful. Dr. Reynolds, while defending—and rightly—the utility of lectures as a means of instruction, virtually admitted the possibility of overdoing attendance on them, when he said of his most favourable types of the student, that they "attended lectures with punctuality and regularity; but they did not waste time by going uselessly over the same ground again and again." They did not lose the continuous course of information which a course of lectures can supply; but having gained that, they used other means to confirm and enlarge their knowledge." That students should be required to attend one course of lectures on each subject, so as to assure to them a connected exposition of it, is beneficial; but the demand for attendance on courses at a time when the time would be more usefully employed in the study of things rather than of words, is at least superfluous, and is liable to confuse the conscientious student as to his line of duty, or to cause him to attempt so much, that the attempt can only defeat its own object.

One point more bearing on student-life demands notice. While the deliverers of the introductory addresses endeavour to guide the intellectual course of the student, and congratulate him on the abandonment of some of the very questionable amusements of past days, several of them most judiciously hint at the advantage of maintaining a *corpus sanum* in which he may exercise the *mens sana*. Dr. Pavy, for instance, said :

"Although he had laid down the law so strictly as to studying, he did not wish the students to be always at work, and never to seek amusement. They were aware of what all work and no play did in the case of that renowned personage going by the name of Jack. There had been many a student who, in working for university honours, had fallen into the error of not allowing himself the necessary time the mind required for repose; and when the day of examination arrived, the mind had been so overworked, the bodily energies had become so exhausted, that the nerves had been agitated and the memory had failed, and thus he fell short of what otherwise he might have attained."

Mr. Heaton, too, spoke boldly of the advantages of bodily exercises in fitting the mind for study :

"In place of the wild dissipation of the past age, there were plenty of healthy amusements, which, so far from hindering a man, would enable him to work the harder. A good pull on the river, a ten mile walk, or a stiffly contested game of cricket, would send any man home to his work with cleared brain and cleansed fibres. It was to be hoped that the time would come when Charing Cross men would be equally celebrated for their success in examinations and for the scores they made at cricket."

Beyond the advice intended specially for the students, as to their moral responsibility and as to the manner in which they should proceed to gather instruction in the great field lying open before them, the lecturers offered comments on various topics of interest to medical men of all classes, and also to the public.

Thus Dr. Pavy at Guy's Hospital, and Mr. Sydney Jones at St. Thomas's, had each a word to say on vivisection; and both agreed in condemning the unnecessary and cruel practices which have been followed in the French veterinary schools, while they recognised the value of experiments on living animals as having done much, and promising to do more, towards the alleviation of the sufferings of mankind and the elucidation of some of the mysteries of medical science. We are glad that Dr. Pavy, who is one of our most able and zealous experimental physiologists, has had an opportunity of expressing his sentiments on the subject of vivisection. What he says, is quite in accordance with the views that have been advanced in this JOURNAL, and to which, we think, no unprejudiced person, no one possessing common sense, can make objection. No one could have stated the proper bearings of the question more clearly or more justly than Dr. Pavy has done; and, we repeat, we rejoice to find him, a leading man among our physiological vivisectioners, so ably and temperately defending the legitimate practice

of vivisection against the well intending but indiscriminate zeal of the Society for the Prevention of Cruelty to Animals.

At St. Mary's Hospital, the subject of Dr. Markham's address was, the present scepticism concerning the effects of remedies over diseases. As his observations on the subject will shortly be laid in full before the readers of the JOURNAL, it is unnecessary to say anything concerning them in this place.

In the introductory address at the Birmingham Queen's College, Mr. Furneaux Jordan made some remarks on one of the most important topics which could possibly be brought forward—the public relations of medicine. He argued most truthfully, that the misunderstanding on the part of the public with regard to legitimate medicine, and their readiness to fall into the hands of pretenders, arises from their ignorance of the principles of physiology. As a remedy, he would have this science taught in our colleges and schools; and he would have the members of the medical profession take an active part in the diffusion of physiological science among the masses of the people. He rightly sees in this a remedy against quackery. We are quite at one with him in his views; and we would gladly see instruction in physiology generally recognised as a branch of ordinary education. This precaution only we would suggest; that the knowledge imparted should, while concise, be complete and systematic, and not a mere superficial smattering. The aim should be to teach physiology as a rational science, not as a mere collection of dry facts; and to give the public such a correct insight into the structure and actions of the body, as will, on the one hand, show how health is to be preserved and disease avoided, and, on the other, convince them of the true value of medical science. We would commend Mr. Jordan's remarks on this subject to the attentive consideration of our readers.

In concluding this outline of the introductory lectures delivered this year, we have only to remark on the philosophical tone which generally pervades them. Students are now exhorted to observe the mutual bearing of facts on each other, and to study medicine as an intellectual pursuit, not as a mere collection of isolated facts, so that they may become scientific, and not mere empirical or haphazard practitioners of their art. In such a course lies the best safeguard against treachery from within, and the attacks of ignorance from without. There are topics, indeed, of public as well as of professional interest, in which it might have been desired that some of the lecturers had expressed their opinions fully—we mean, for instance, the indiscriminate giving of gratuitous medical advice. Perhaps this subject will be taken up on some future occasion, with the object of enlightening the students and the public on the abuse of charity which prevails in the medical

profession. But, for the present, we have to recognise only the general excellence of the remarks made by the deliverers of the introductory addresses, and to express our sincere hope that the thought and time and labour which have been bestowed on these productions may meet with its due reward, not only in the beneficial effects produced on the students themselves, but in elevating the position of the medical profession both in itself and with the public.

A HINT FROM VERONA.

DR. LEE, of Philadelphia, who has been lately travelling through Italy, visiting its hospitals, etc., gives us a description of the bathing department of a new military hospital lately built at Verona. There is really something very humiliating to science—something not very creditable to our profession—in the fact of the neglect—we had almost said the complete neglect—which is shown by our hospital physicians and surgeons in general respecting the treatment of diseases by the application of water in its many forms.

Our profession has, in this matter, played right well into the hands of the irregulars. Because M. Priessnitz, and others of his kind, have chosen to quack this most excellent remedial agent, the profession has turned up its nose at the whole thing. The very term *hydropathy* is a term of reproach and reprobation with us. But, philosophically speaking, because a set of quacks seize upon and quack an excellent remedy, is that a reason why medicine should disdain to recognise its goodness? We have no hesitation in saying, that the absence of apparatus for the cure of disease by the agency of water in our London hospitals is a disgrace to the profession.

Dr. Risdon Bennett, and one or two other physicians, have had the courage to use the wet-sheet in the use of certain diseases; and, we believe, still use it. But, we ask, is there any hospital in London at this moment in which the systematic treatment of disease by the various possible and useful modes of the application of water is a recognised and established fact? Surely every member of the profession will admit the powerful agency of the remedy. What excuse, then, is there for our not more generally and systematically resorting to its use? We suppose the only answer which can be given to the question is, that our hospitals do not afford the means. Let our readers see what the Austrians can do in this way. In the new military hospital, containing 1500 beds, at Verona. Dr. Lee tells us:—

"The bathing-rooms are fitted up on a very extensive scale, and are supplied with hot and cold water-baths, steam-baths, douches, etc. For steam-bathing, a large room is fitted with rows of bedsteads, one rising above the other in steps, like an amphitheatre, with sloping head-board for the comfort of the patient, who is laid in his blanket on one of these wooden platforms or bedsteads, and steamed by the admission of any degree and quantity of steam from the boiler in an adjacent apart-

ment. In the adjoining room are small apartments, or stalls, of sizes suited for patients standing, sitting, or reclining, fitted with pipes and faucets, admitting a shower-bath from above, or horizontal jets from the sides, or a perpendicular jet falling quietly on the patient, thus furnishing ample facilities for every kind of local or general bath.

"Two other large apartments are fitted up with thirty-six large marble bathing tubs, with tubes and valves for hot and cold water. These tubs are sunk several inches in the floor, the top remaining about one foot above, making it easy of entrance by the invalid, and at the same time convenient to put a patient in the bath who may require assistance.

"In another apartment is a large boiler, set in masonry, for steam and hot water for the bathing-rooms; and connected with this is a room containing a reservoir or cistern, rising nearly to the ceiling, supplying a head of cold water for the bathing-rooms, steam-boilers, etc. This reservoir is supplied with water pumped by manual labour from the river Adige. All the bathing-establishment, the store-rooms, apothecary's department, and kitchens, are on the basement floor, and elevated about three feet above the court-yard."

VIVISECTIONS IN FRANCE.

M. DUBOIS has published a discourse which he intended to have delivered at the Academy on the subject of Vivisections, in answer to the objections made to the amendments proposed by him. It is a brilliant summary of the whole subject, logical and consistent, and utterly condemnative of the amendment which has been carried by the Academy. M. Dubois showed to demonstration that the operations—surgical manœuvres—as practised on the living horse in France, and physiological demonstrations on living animals in the public schools, are utterly unjustifiable, and a scandal to humanity. In all this we most thoroughly agree with him.

"If we," he said "are to carry out the wishes of certain savants, we shall make every one of our professional chairs a scene of blood, and even this very tribune which I now occupy. Already I have heard the cries of some wretched animals in your library, which they have desired to bring here under your eyes. Let us tell the minister that vivisections are necessary for the advancement of science, and that to suppress them would be to arrest the progress of physiology; but let us also say, that they are unnecessary in the teaching of this science, and that recourse ought not to be had to them either in public or private lectures. Astonished am I to find that the Society for Protection of Animals contains amongst its members professional vivisectioners. But if it be thus that they protect animals, I can do no more than hide my face. I thought to be of service to the poor horse; and I see that I have rather injured than improved his case. M. Bouley said incidentally that human surgery might well take a lesson from the school at Alfort, and practise our pupils in operations on the living horse. And the remark did not pass unnoticed; for it has been already seized upon by the partisans of vivisection at any price; so that henceforth this practice may come to be regarded as a necessary part of surgical education. This, therefore, is, alas! poor horses, all that you will have gained by this discussion. The branch of industry concerned in the supply of these wretched horses will be extended."

THE WEEK.

THE *Pharmacopœia* is already in print; and we understand that in a few weeks it will be presented to the profession. Some few small items have yet to be settled between the triangular committees which sit in London, Edinburgh, and Dublin. The main delay results from this necessarily prolonged method of settling any disputed point between three parties each living widely apart.

Two new journals have appeared in Italy, *Il Raccolitore* and *La Rivista di Scienze Mediche*, the first at Leghorn and the second at Turin. Rome, we need hardly add, has neither a medical journal nor a medical society. It effects its cures by other means than medicine.

A faculty of medicine is to be founded in the Tyrol, at which lectures will be given in German and in Italian. This, we suppose, is, in part, a political manœuvre on the part of Austria to bridge over the differences in race and feeling, which exist between its Italian and German subjects.

"It is seldom," says a French journal, "that we find royal personages who deign to interest themselves in the works of the scientific. War, politics, etc., absorb all their attention, and a congress of doctors generally passes by unnoticed. The public scarcely notice the fact; and the press generally pass it by, and regard the meeting of less importance than a flower show."

The second annual medical congress has just passed over at Naples with grand *éclat*. All the Italian provinces were represented there; and if we read our *confrères* of the City of the Lagoon and of Magna Roma were absent from the banquet of our Association, they, nevertheless, assisted at it with the spirit of those generous souls which the force of despotism may silence, but can never extinguish.

Professor Rostan is about to retire from his public Lectureship, after having been engaged for forty years in teaching. M. Grisolle, at present Professor of Therapeutics, aspires to occupy the clinical chair vacated by M. Rostan.

A Society of medical men in France brought actions against certain charlatans in their district, Eure-et-Loire, and obtained upwards of £20 damages. This sum they have distributed amongst the poor of the district.

On the 20th September, the Academy Royal of Medicine of Madrid consecrated a monument to the memory of the celebrated physician Vallès, called the *divine*. A stone commemorating the fact was placed in the house where he lived, at Alcalá; and another stone on the spot where he was buried.

ARMY MEDICAL SCHOOL.

THE Royal Victoria Hospital was visited on October 1st by more than a hundred gentlemen, including many civil practitioners of Southampton, and officers of both services, in order to hear the address by Dr. Maclean, Professor of Military Medicine, at the commencement of the seventh session of the Army Medical School.

Dr. MACLEAN delivered a brilliant oration, in which many subjects of great interest were reviewed. The main topics were the impending measures for the reorganisation of the Indian medical service; the report of the Sanitary Commissioners on the mortality of Europeans in India; and the system of instruction at the Army Medical School. The speaker referred with regret to the fact that a complete identification of the Queen's and Indian medical service was not to be carried out; and he expressed his belief that this could have been done with due regard to every duty and to every interest. He was glad, however, that there was still to be some bond of union, and that a common portal would introduce men into both services. In reference to the Sanitary Commissioners' report, he vindicated at some length their statistics from the objections raised against them; and drew a vivid picture of what England has done, and can do, in India, to improve the condition, not only of the European, but of every native race. A short statement of the objects of the school followed, and concluded a most interesting address.

After the lecture, the commandant of the hospital, Colonel Wilbraham, C.B., an officer distinguished for a long and honourable service in all parts of the world, including Syria, Persia, and the Crimea, made an address to the candidates for the service, who had just arrived to attend the school. After referring to the very gentlemanlike and excellent conduct of the assistant-surgeons who had just left the school, and expressing a hope that he would be able to report equally well of their successors, Colonel Wilbraham took occasion to say a few words on the mutual positions and feelings towards each other of the combatant and medical officers. He said that in both the regiments in which he had served for so many years, the medical officers were on the best terms with their comrades, and were esteemed by all for their intelligence, professional knowledge, and gentlemanlike conduct. In the Rifle Brigade, he never heard the name of Dr. Anderson, the present Inspector-General of Netley, referred to but in terms of the greatest affection; and it was the same in the Fusiliers with Dr. Morehead, and in the 19th Regiment with Professor Longmore, two others of the staff. And so, he believed, it was everywhere, when medical officers were, what the majority of them were, able in their profession, conscientious in their duty, and gentlemen in word and deed. He regretted to see the attempt which had been made to sow discord between officers of the same service; and he begged those gentlemen who were about to enter the army to remember that it was not rank which gave a man status in his regiment; but his own qualities and capabilities. He trusted that while at Netley they would find everything done for their comfort as well as for their instruction. He was quite sure that it was the intention of the Government that it should be so. He thanked Dr. Maclean for his most interesting lecture.

Before the lecture, a grand luncheon was given to the visitors by the officers of the medical staff, in their new mess-room, which was opened on that day for the first time. This is a splendid room; lofty, well-ventilated, and warmed, and capable of dining one hundred guests with ease. It is in accordance with everything else which the War-office has done at Netley. Everything is on a good scale, without unnecessary expense, and yet designed on a liberal plan.

Progress of Medical Science.

PNEUMATOCELE OF THE SKULL FOLLOWING FRACTURE OF THE PETROUS BONE: RECOVERY. Emphysematous tumours of the cranial region do not seem to be common; for very few examples are known. One has been recorded by M. Jarjavay; and another by M. Ballassa of Pesth, in the *Archives Générales de Médecine* for 1853. To these, Dr. Chevance of Wassy adds the following.

A miner, aged 44, of good constitution, fell in 1850, from a height of five *mètres* (nearly five yards and a half) on his feet, and immediately felt a very intense fixed pain at the back of his head, on the left side, with dazzlings of the eyes, slight giddiness, and ringing in the ears; he felt stupified also for half an hour, but did not lose consciousness. He said afterwards that he several times heard a crackling sound at the back of his head, in the situation of the pain. There was no wound, nor any escape of blood or of any fluid by the ears, nose, or mouth. The symptoms which followed were pain at a distance of about five *centimètres* behind the left external auditory meatus, and difficulty of swallowing on this side. No treatment was pursued. Six weeks afterwards, there were difficulty of hearing, and constant troublesome buzzing noises in the left ear. At the same time, there appeared at the painful spot a small tumour, which remained stationary eight months, and then increased rapidly in size, so as to occupy the left posterior half of the head and almost the whole of the occipital region. Two punctures were made in it by a medical man; but air only escaped. At this time, seventeen months after the receipt of the injury, the patient entered the hospital at Wassy. At this time, the tumour commenced four *centimètres* from the ear, had a transverse extent of fifteen *centimètres*, and extended from the neck to the back of the head, forming a curve of twenty *centimètres* in extent on the left side and eighteen on the right. It was painless, elastic, resistant to pressure, without heat or any trace of inflammation, and gave a tympanic sound on percussion. There was no pulsation nor fluctuation. On being punctured with a trocar, it gave issue to gas alone, which, on being collected under water and tested, presented all the characters of atmospheric air. After its removal, there were found, a little above and behind the mastoid process, about four or six *centimètres* from the left auditory meatus, two hard, bony, unequal projections, between which a depression was felt; it was in this situation exclusively that the patient had always complained of pain. When the man made a strong expiration, the nose and mouth being closed, the air escaped with a hissing sound through the left ear. When the swelling was compressed with the hand, it collapsed, and gradually shrivelled, producing, the patient said, a crackling sound in the left ear. The *membrana tympani* was torn.

M. Chevance concluded that the case was one of fracture of the petrous bone by *contrecoup*, producing a communication between the tympanic cavity and the areolar tissue lying beneath the scalp; and in this way he explained the gradual formation of the pneumatocele. In order to produce a radical cure, he determined on provoking adhesive inflammation on the walls of the tumour. A seton was, therefore, introduced, by which violent inflammation was set up; and on the third day, there was an abscess which, on being opened, discharged 500 *grammes* of pus. In a month, the adhesion of the skin appeared complete. But, two months afterwards, the tumour again formed, being attended with the same symptoms. An abscess was, therefore, again evicted by the introduction of another seton; and on this occasion the cure was permanent. In M. Ballassa's case, also,

the cure was completed by the excitation of inflammation so as to produce adhesion of the integuments. (*Union Méd.*; and *Bulletin Génér. de Thér.*, 30 Août 1863.)

SUCCESSFUL RESULT OF DIVISION OF THE NERVE IN TRAUMATIC TETANUS. A case of this kind was recorded by Mr. S. Wood of Shrewsbury in the *JOURNAL* for July 6th. Since the publication of that paper, the history of another case of the same class has come under our notice. It occurred in the practice of Dr. Fayer of Calcutta, and is recorded by him in No. xvi of the *Indian Annals of Medical Science*.

A young Brahmin, aged 22, was admitted into the Calcutta Hospital on November 3rd. A week previously, he ran some splinters of bamboo into the left hand at the root of the thumb; they broke off, and remained lodged in the hand just by the ball of the thumb. Suppuration followed, and was attended with much pain. The patient, during the three days before admission, had been able to close the fingers of the injured hand, but when he opened them they became spasmodically contracted and twisted; the thumb and the three fingers supplied by the median nerve were implicated. He had no spasm of the arm, but pain in the left shoulder, and partial closure of the mouth, which could be opened sufficiently to introduce the handle of a table-knife. He was in good spirits, and seemed to have had good health before the accident. Dr. Fayer made an incision into the palm of the hand, and removed a splinter an inch in length. An enema of castor-oil and turpentine was ordered; also two grains of opium, to be taken immediately. The next day, the spasms continued in the hand, and he had frequent spasms in the back, and some rigidity of the jaw. The slightest touch produced spasm of the arm, back, and jaw. He was ordered to have tincture of Indian hemp and chloroform; enemata of oil and turpentine; opiate poultices to the wound; and, as diet, milk and sago, or whatever he would eat.

Dr. Fayer removed another small splinter. As the splinters were impacted just where the median nerve divides into its digital branches, the patient was put under the influence of chloroform, and Dr. Fayer divided the median nerve just above the annular ligament. Very little effect was produced at the time. Six hours afterwards, he said that the fingers were somewhat benumbed; that he had pain in the hand and arm; but that the contractions of the arm were much less frequent and violent.

On the following day (Nov. 5th), there was no rigidity in the neck and jaws. The spasms in the arm and hand continued, but were less violent and persistent. The Indian hemp, opium, and chloroform, were continued up to November 9th. On November 12th, matter having formed in the hand, incisions were made and another splinter was removed. The spasms had ceased, but the fingers continued bent into the palm, though less rigidly than before. The hand remained for some time contracted, long after spasm had ceased. When he left the hospital on November 28th, he could with slight effort straighten the fingers, and was regaining the use of them.

Dr. Fayer believes that the arrest of the tetanic symptoms was due rather to division of the nerve than to the internal remedies which were employed. The operation was done soon after the tetanic symptoms set in.

PERINEPHRITIC ABSCESS. This affection, M. Jobert de Lamballe observes, is common enough. He has seen several instances among M. Trousseau's patients, and one under the care of M. Rayer. In the latter instance, the abscess was developed in the cellular tissue which surrounds the kidney; on being opened, it gave exit to

pus, which had an odour of peritoneal fluid, intestinal contents, and putrid liquids.

These abscesses are not always produced by disease of the kidney. Cold may induce in this region a diffused phlegmonous inflammation, like that which the same influence produces in the thigh, arm, etc.; or the abscess may follow a fall or blow. Pyelitis or pyelo-nephritis also may implicate the cellular tissue and produce phlegmon. Gravel, or calculi, especially rough ones, lying in the renal calices, may produce fistulous abscesses. In such cases, the abscess may be the result of pyelitis, the inflammation reaching the kidney and the areolar tissue surrounding it; or the tissue of the kidney perforated; and the abscess is produced by urinary infiltration.

Whatever be the mechanism of its formation, the abscess points either externally or into the rectum; sometimes towards the iliac fossa or the crural arch; sometimes it opens into the peritoneal cavity; it has even been observed to reach the air-passages.

The symptoms are, at the commencement, sudden pain in the kidneys and hypogastrium, with frequent and abundant vomiting. The pain is seated more deeply than in lumbago; and its nature is further explained by the fever and rigors which ordinarily precede it. If this condition persist seven or eight days, it may be predicted that pus has been formed in the areolar tissue surrounding the kidney. At this time, also, inspection and palpation of the lumbar region may detect, if not fluctuation (which is rarely absent), at least sensible tumefaction of the lumbar region with a pasty or oedematous feel, especially behind. But even if these external signs be absent, the sympathetic reaction, with the history of the case (if the perinephritis be not primary, in which case the diagnosis is very difficult), are sufficient to render the diagnosis of phlegmon almost a matter of certainty.

The prognosis is grave; for, if the existence of the phlegmon be not diagnosed, and if issue be not given to the accumulated pus, it may spread to the right or left, or be effused into the peritoneum, etc.; and the inflammation may extend to neighbouring organs, as the spleen or lung. Even in the most favourable cases, where the abscess opens spontaneously outwards, troublesome fistulae are formed; the pus becomes thin, decomposed, and acts as a formidable poison.

When suppuration has once taken place, the only treatment is to allow it exit by a large opening. M. Jobert is opposed to the plan of making a small incision with a narrow bladed bistoury; as the muscles of the back must be cut through, and, if an artery be divided, it is impossible to secure it. He, therefore, advises a long incision. The tissues must be divided layer by layer, and as each is reached, the finger must be carried to the bottom of the wound. If an artery be felt, it must be tied and divided; if a vein, it is divided between two ligatures. The covering of the purulent collection being at last reached, a small opening is made, on which the pus escapes; and the aperture may be enlarged by scissors or by a probe-pointed bistoury, in order to allow the free escape of the pus, or of calculi if they be present. (*Journ. de Méd. et de Chir. Pratiques*, Août, 1863.)

URÆMIA IN UTERINE CANCER. According to Dr. Wannebroucq, uræmic poisoning is a frequent mode of death in cases of cancer of the uterus. The uræmic symptoms assume either the acute or the chronic form, most commonly, perhaps, the latter. Headache, sleeplessness, creeping sensations in the limbs, and disturbances in the organs of sense precede, for a longer or shorter time, the more severe and acute symptoms of convulsions, delirium, coma, etc. Sometimes the patients die in a few minutes; sometimes not until after several attacks. In a case observed by Dr. Wannebroucq, the vomiting,

which is an ordinary symptom of uræmia, was unusually predominant and violent. It was incessant and unstrainable, so that it produced death by inanition, although the fatal termination had appeared distant. In all the cases where uræmic symptoms have been noticed, one or both of the ureters has been found more or less implicated in an extension of the cancerous disease. (*Bulletin Méd. du Nord de la France*; and *Bull. Génér. de Thér.*, 13 Sept. 1863.)

PULMONARY APOPLEXY IN NEW-BORN CHILDREN. M. Hervieux sums up a memoir on this subject with the following conclusions. 1. Pulmonary apoplexy in new-born children generally attacks both lungs simultaneously. 2. The hæmorrhagic deposits occupy the surface of the organ, rather than its interior. Of variable number and size, they consist sometimes of small subpleural ecchymoses, sometimes of true sanguineous clots with or without alteration of the pulmonary tissue. 3. Sanguineous infiltration with integrity of the pulmonary tissue is the most common form in new-born children. 4. The tissue on which the apoplectic deposits may be in a state of splenisation or of hepatisation. 5. In one-third of the cases, an effusion of serous or sanguinolent liquid is found in the pleura of the diseased side. 6. Although the heart is ordinarily sound, the same is not the case with the other viscera, such as the brain and the intestines, the peritoneum, the intestinal mucous membrane, the liver, the spleen, and the kidneys, which present traces either of true interstitial hæmorrhage or of apoplectiform hyperæmia. 7. The symptoms observed during the life of new-born children attacked with pulmonary apoplexy are, alteration of the cry, increasing difficulty of respiration, expectoration of frothy or sanguinolent mucus, thoracic dullness, weakness of the vesicular murmur, moist mucous or subcrepitant rhonchi in some cases, and finally symptoms of progressive algidity. 8. Aphthæ, jaundice, and diarrhœa, are the most probable concomitants of the disease. 9. The determining cause of pulmonary apoplexy in new-born children appears to be the disturbance of the calorific and circulatory functions. 10. Pulmonary apoplexy, like progressive algidity, scarcely attacks young infants except during the first three weeks of extrauterine life. 11. The duration of the disease varies between two and twelve days, and it terminates commonly in death. 12. The treatment consists in the use of the means ordinarily employed in the treatment of algidity, and of dry cupping, sinapisms, etc. (*Gazette Médicale de Paris*, 5 Sept. 1863.)

APPLICATION OF CAUSTICS IN DIPHThERIA. Dr. Casali recommends astringent or caustic injections to be made through the nostrils in cases of diphtheria affecting the fauces or larynx. The advantages of this plan are said to be the following. 1. The child cannot resist the application, as it often does when the application is made directly to the tonsils or larynx. 2. The parents, or those who have the care of the patient, can make the injections without medical aid, so that the frequency of the application can be insured in cases where it is required. 3. The injected fluid, being thrown back immediately by the expulsive efforts which its contact produces, comes into contact with all the surfaces and anfractuosités of the throat—a result which cannot be attained by direct application. The spasmodic movements, moreover, aid powerfully the detachment of false membrane. 4. The child, not having been terrified by the direct application of the caustic, does not refuse to open its mouth to take proper food and medicine. (*L'Imparziale*; and *Bulletin Génér. de Thér.*, 15 Sept. 1863.)

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
MIDLAND. [Quarterly.]	Board Room of the Infirmary, Derby.	Thursday, Oct. 15, 2 P.M.
SOUTH MIDLAND. [Autumnal.]	Infirmary, Northampton.	Thurs., Oct. 22, 1 P.M.
BATH AND BRISTOL. [Ordinary.]	York House, Bath.	Thursday, Oct. 22, 7.15 P.M.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held in Birmingham, September 29th, 1863.

PRESENT:—Sir Charles Hastings (in the Chair); Mr. Bartleet; Mr. Clayton; Dr. Falconer; Mr. Fowler; Dr. Roberts; Mr. Southam; Dr. Stewart; Dr. Styrap; Dr. Westall; Dr. Wilkinson; and Mr. Williams (Secretary.)

The following resolutions were adopted.

1. That there shall be only two addresses delivered at the annual meeting at Cambridge.
2. That Dr. Ormerod be appointed to deliver the Address in Medicine.
3. That Dr. Humphry be appointed to deliver the Address in Surgery.
4. That the Secretary, as far as practicable, carry out the recommendations contained in the Report of the Finance Committee, presented June 24th, 1863.
5. That the President of the Association, the President of the Council, and the Secretary, be appointed a sub-Committee, to prepare a Memorial to the Council of the Royal College of Surgeons of England, as recommended in the Annual Report; and that the same be forwarded to the President of the College, signed by the President of the Association and the Secretary.

T. WATKIN WILLIAMS, *Secretary.*

Birmingham, October 2nd, 1863.

P.S.—The Committee earnestly urge upon those members of the Association who have not yet paid their subscription, the necessity of doing so without further delay.

Correspondence.

THE SOCIAL EVIL IN LONDON, AS VIEWED BY A FOREIGN PHYSICIAN.

SIR,—Having paid a good deal of attention to this plague, with its physical and moral consequences, both here and on the continent, it has struck me that real prostitution, in its most hideous aspects, is more general in this country than elsewhere. In some continental seaports, it exists to a great extent, but is there confined to certain spots; but in this country, wherever great masses congregate, you will find it in all its hideousness and audacity.

The question has two sides, the moral and physical. With the moral question our social state has some connexion, and I believe the laws of the country exercise considerable influence upon it.

I proceed to the physical and medical parts of the question: these are, prevention and cure of the consequent disease. The people of this country justly condemn the continental system of visiting those unfortunates and packing them together. The practice may do some good, but it is a very disgusting one for government to be engaged in. The question is a social one, and ought to be taken in hand by society itself. Other

nuisances, such as juvenile crimes, have been arrested and abated by courageous and good men. We should have a hygienic code to prevent the disease, and I am convinced that the remedies exist.

For curing the diseased women, I would have a medical man specially attached to each hospital and dispensary, and well paid. I say well paid, because otherwise the duties would not be so satisfactorily discharged; the philanthropical profession of medical men giving their time and services gratuitously being cant, or they estimate their amount of knowledge at its true value. I would then endeavour to induce all the unfortunates voluntarily to visit those hospitals and dispensaries, whether ill or well, and as frequently as possible, every three days at least; and, to save appearances and scandal, those visits might be in the evening. After each visit, if the woman's condition justifies it, let her have a clean bill of health. I believe it would soon be found that she could not successfully pursue her calling unless she could produce such certificate. I propose this means as a progressive remedy for this great evil, the question being how to deal with it according to English ideas. Any interference on the part of the government, beyond keeping the streets quiet and respectable, would put in jeopardy that great principle of individual liberty which is rigidly kept in view in all legislation in this country.

I am, etc., H. L.

IRIDECTOMY.

LETTER FROM JOHN C. WORDSWORTH, ESQ.

SIR,—Permit me to offer a few remarks on the article that appeared in our JOURNAL of September 26th, on the subject of Iridectomy. I desire to do this in justice to those who practise the operation, rather than in the hope of converting those who condemn it untried.

It seems to me that I might as well attempt to convince some "first rate surgeons" that it is better to excise joints than to amputate limbs, as urge further reasons why iridectomy should be adopted in the treatment of glaucoma, rather than allow such cases to run their acknowledged course, unopposed by any remedy. There are, no doubt, in our profession, representatives of the tory type of mind, who cannot be converted, or will not be dispossessed of preconceived views, by any arguments whatever, be they never so unanswerable.

Such men have their use in the world probably, though it may only be that of acting as drags to the rapid progress of others; therefore, let them be allowed to fulfil their destined purposes in their own way.

Turn we then to those who are open to conviction, and being convinced, though it may be somewhat against their established and long-cherished notions, are willing to avail themselves of all the resources of art, rather than abandon those suffering from otherwise irremediable disease. For if iridectomy be not a remedy for glaucoma, where does one exist? In the hands of the most expert and judicious surgeons, it, doubtless, will not always succeed in restoring sight; but in a large proportion of the cases in which it is indicated, much improvement may be predicted, with as much confidence as justifies the operations for hernia or aneurism.

So much has been accomplished by it in the treatment of glaucoma, and other conditions that are much influenced by the tension of the eyeball, as well as in cases of recurring iritis, attended by adhesion to the capsule, that, in my opinion, it can never fall into disuse, so long as we are only possessed of the means at present known for combating these affections. If "the celebrated eye-surgeon" whose opinion you quote, as to its evanescent fate, is enabled, in his prescience, to foretell that iridectomy will soon be superseded by some new mode of treating glaucoma, then I will hail with satisfaction its becoming "a mere matter of history"; nay, I

look forward with much hope that a better acquaintance with the pathology of the eye will indicate the means of cure before iridectomy has become the last resource. That it is becoming obsolete already is certainly contrary to the experience of my colleagues and myself at the Moorfields Hospital. On the contrary, I believe that we daily perform the operation even more than ever; and not only for the glaucomatous states, and for restoration of the pupil, but as a preliminary to extraction of cataract by the small spoon. If I were asked to instance one of the most splendid triumphs of modern surgery, I believe that I could adduce no more remarkable one than that of "linear extraction" of cataract in the adult. I have witnessed, by this mode of operation, the restoration of vision in both eyes within twenty-four hours; and the operation has been attended with so little inconvenience that the patient has not even been confined to his bed, nor lost one night's sleep.

That iridectomy should be abused, we should expect from all we have known of other novelties. That it should be employed in hopeless cases, and so fall into disfavour, must have been anticipated; and that it would be discredited by inapt operators, and by those who do not attempt even to perform it properly, also was to be foretold, almost as a matter of course. These detractions pursue us in all our efforts to fulfil the indications of science in the use of remedies; still there is always a margin left to indicate the value due to all our proceedings.

We see how severely ovariectomy has been assailed; yet though as much injured, almost, by its advocates as by its detractors, it still continues to snatch those who seem hopeless from their impending fate.

I am, etc., J. C. WORDSWORTH,
Surgeon to the Royal London Ophthalmic Hospital.
50, Queen Anne Street, September 1863.

Medical News.

APOTHECARIES' HALL. On October 1st, the following Licentiates were admitted:—

Gooding, Ralph, Ipswich
Harmer, William Milsed, Hawkhurst, Kent
Lightbourne, James Ashburner, Church Street, Preston
Meadows, George Frederick, Walford, Otley, Ipswich
Miles, George, Gillingham, Dorset
Parks, Charles Holman, St. Colomb, Cornwall
Skelton, John, Great Russell Street, Bloomsbury
Towne, Alexander, Kingsland Crescent

At the same Court, the following passed the first examination:—

Covey, Charles Edward, Basingstoke

APPOINTMENTS.

ASPEAY, Charles D., M.D., appointed Resident Surgeon to the Western General Dispensary.

COOPER, Frank W., Esq., appointed House-Surgeon to the Sheffield Public Hospital.

HAINES, R. M.B., appointed Acting Registrar of the University of Bombay.

JAMILLTON, William G., M.D., appointed Medical Officer and General Superintendent of the Dundee Royal Infirmary.

*SCOTT, Thomas A. F., Esq., appointed Public Vaccinator for the parish of Lochmaben.

BEDFORD GENERAL DISPENSARY AND LYING-IN INSTITUTION. The following appointments have been made in this Institution.

*BARKER, T. H., M.D., appointed Senior Surgeon.

*GOLDSMITH, G. P., Esq., appointed Surgeon.

HACON, R. D., Esq., appointed Surgeon.

*PRIOR, C. E., M.D., appointed Senior Surgeon.

ROBINSON, C., Esq., appointed Senior Surgeon.

ROBINSON, G., Esq., appointed Surgeon.

POOR-LAW MEDICAL SERVICE.

ALEXANDER, Frederick J., L.R.C.P.Ed., to the Metfield District of the Hoxne Union, Suffolk.

HENDERSON, Joseph, Esq., to the Lower Deptford District of the Greenwich Union.

INDIAN ARMY.

BROUGHTON, Surgeon F., Bombay Army, to be Surgeon-Major.

JOHNSTONE, Surgeon T. B., Bombay Army, to be Surgeon-Major.

SANDERSON, Assistant-Surgeon J. T., M.D., Bombay Army, to be Surgeon.

WIEBE, Assistant-Surg. C. G., M.D., Bombay Army, to be Surgeon.

ROYAL NAVY.

ADAMS, W. H., Esq., Surgeon (additional), to the *Royal Adelaide*.

MACDONALD, John A., Esq., Acting Assistant-Surgeon (additional), to the *Euryalus*.

McMAHON, William, M.D., Acting Assistant-Surgeon (additional), to the *Euryalus*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

SNAPE, R. F., Esq., to be Assistant-Surgeon 18th Lancashire A.V.

To be Honorary Assistant-Surgeons:—

CASH, J., M.D., 11th Derbyshire R.V.

CLARKE, J., Esq., 22nd Staffordshire R.V.

CLAYTON, R. P., Esq., 1st Lancashire Light Horse Volunteer Cavalry.

TAYLOR, R. F., Esq., 8th Argyllshire A.V.

YEOMANRY CAVALRY.

MAURICE, J. B., M.D., to be Assistant-Surgeon Prince of Wales's Own Royal Regiment (Wiltshire).

DEATHS.

ALLANBY, John S., M.D., 95th Regiment, at Hyderabad, Scinde, aged 27, on July 28.

BERNAYS. On September 27th, at Hampstead, aged 14 weeks, Ethel Frances Helen, daughter of Albert J. Bernays, Ph.D.

BORLAND. On September 29th, at Teddington, aged 77, Susan Frances, widow of James Borland, M.D., Inspector-General of Army Hospitals.

CANHAM. On September 26th, at Sudbury, Frederick, youngest son of Joseph Canham, M.D., of St. Lawrence, Isle of Thanet.

CROOKS, Henry, Esq., Surgeon, at East Harling, Norfolk, aged 62, on September 26.

HALIDAY. On September 26th, at Dublin, Marian, widow of William Haliday, M.D., of Clifden, co. Down.

HANSARD, F. N., Esq., Surgeon, at Montacute, on October 4, Gilbert Henry, Esq., Surgeon, at Kensington, aged 56, on October 5.

HOOKE. On September 28th, at Kew, aged 6, Maria Elizabeth, second daughter of J. D. Hooker, M.D.

MAY, William, Esq., Surgeon, in Great Trinity Lane, aged 66, on September 23.

PELEKINE. At Kief, aged 18, Olga, second daughter of P. Pelekine, M.D.

RAPER. On September 17th, at Portsmouth, Mary H., wife of William A. Raper, M.D.

NEPHRITE OR JADE. A block of this rare mineral, weighing 1,200lbs., and of exceptional purity, has just been obtained. The Kensington Museum at London also possesses a valuable block of this mineral.

ROYAL COLLEGE OF SURGEONS, EDINBURGH. At a meeting of the College, held on the 2nd inst., Dr. Andrew Wood was unanimously reelected representative in the General Council of Medical Education and Registration, for the period of five years.

DEATH FROM EATING LABURNUM SEEDS. A little girl, nine years of age, living at Worcester, died on Saturday last from eating the seeds of the laburnum. It appeared that on the previous day the deceased, with some other children, was eating Indian corn, and it is supposed that some of the laburnum seeds were among it. She was taken ill in school and sent home, where a medical man was soon in attendance. The little sufferer, however, grew gradually worse, and died at five o'clock on Saturday morning. (*Worcester Chronicle*.)

TESTIMONIAL TO MR. W. G. A'BECKETT. The gentlemen composing the resident medical staff of the Melbourne Hospital, entertained their late colleague, Mr. William Goldsmith A'Beckett, on June 5th, on the occasion of his retirement from office in the institution. In the course of the evening, they presented him with an elegant vase formed of an emu's egg, exquisitely mounted in silver, and bearing the following inscription.—"W. G. A'Beckett, a parting gift from the resident staff of the Melbourne Hospital, June 1863." (*Herald*, June 8th.)

THALLIUM. Mr. W. Crookes, F.R.S., read at the late meeting of the British Association, at Newcastle, an interesting paper *On the Extraction of Thallium on a large scale from the Flue Dust of Pyrites Burners*. It appears from operations upon five tons of material, to have produced a bar of thallium weighing a quarter of a hundred weight.

A SCAPEGRACE PROFESSION. The police reports of last week tell us of two "surgeons," who have been convicted of stealing. We suspect that these "surgeons" are as much so, as many of those riotous Haymarket gents, who some years ago used to figure in the papers as medical students, were medical students.

SPECTRUM ANALYSIS. The practical employment of spectrum analysis is, I regret to say, of but very limited use, and has caused me many disappointments before I finally determined to abandon it except by way of confirmation in subsequent experiments. The spectrum by itself gives no indication of quantity. The green line produced by a residue containing but one part of thallium in a thousand is as vivid and distinct as the line given by the pure metal. (W. Crookes.)

MATCHES. In a lecture by Sir Robert Kane, *On the Chemical Manufacture of Matches*, we are told that: the number of matches manufactured in Great Britain was about 40,600,000 a day, in addition to which the importation of foreign matches was five times as great, so that the total consumption of matches might be estimated at 240,000,000 a day. The manufacture of this immense quantity gave employment to a large number of workmen, and it was satisfactory to know that, owing to recent improvements, the diseases formerly incident to the manufacture were now avoided.

FOUNDLING HOSPITALS. It appears that for some time past numbers of newly-born infants have been sent across the French frontier and deposited in the turning box of the foundling hospital at St. Sebastian. The Spanish authorities have determined henceforth to punish the persons who commit such offences with the utmost rigour of the law, and have made an appeal to the French authorities to aid them in putting an end to what has become a disgraceful traffic. The Prefect has accordingly instructed all his subordinates to keep a strict watch on the frontier.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE. The Winter Session of this School was opened on October 1st, with an address by E. Batty, Esq.; after which the following prizes were delivered. *Principles and Practice of Surgery.* Medal, J. P. Irvine; certificates, J. C. Roselloty, and R. H. D. Johnson.—*Principles and Practice of Medicine.* Certificates, R. H. D. Johnson, and J. C. Roselloty.—*Anatomy, Physiology, and Pathology.* Senior class: Medal, J. P. Irvine; certificate, J. H. Gornall.—*Descriptive and Surgical Anatomy.* Junior class: Medal, W. H. Burgoyne.—*Chemistry and Pharmacy.* Medal: H. Sewill; certificate, H. M. Steele; special book prizes, H. G. Samuels, and R. Leigh.—*Midwifery, Diseases of Women, and Diseases of Children.* Medal, J. P. Irvine; certificate, J. Houghton.—*Materia Medica and Therapeutics.* Medal, J. P. Irvine; certificate, F. Long.—*Medical Jurisprudence and Toxicology.* Book prize, J. P. Irvine; certificate, G. Griffith.—*Botany.* Certificate, R. Leigh.—*Ophthalmic Medicine and Surgery.* Book, J. P. Irvine.—*Practical Chemistry.* Book, R. A. Mowell; certificate, R. Hughes. *Pathological Anatomy.* Medal, G. Griffith; certificate, J. Houghton.

QUEEN'S COLLEGE, BIRMINGHAM. The October session commenced with an address by Professor Furneaux Jordan. The chairman (the Rev. Mr. Poulton), distributed the following prizes:—*Anatomy.* First certificate and medal, Mr. Mackay; second certificate, Mr. Wykes and Mr. Tonks (equal).—*Anatomical Demonstration.* First certificate and medal, Mr. Mackay; second certi-

cate, Mr. Wykes and Mr. Tonks (equal).—*Medicine.* First Certificate and medal, Mr. Lloyd; second certificate, Mr. Bousfield.—*Surgery.* First certificates and medals, Mr. Gibbs and Mr. Richardson (equal); second certificate, Mr. Mackay.—*Physiology.* First certificate and medal, Mr. Mackay; second certificate, Mr. Wykes.—*Chemistry.* First certificate and medal, Mr. Tonks; second certificate, Mr. Bousfield.—*Botany.* First certificate and medal, Mr. Thomas.—*Practical Chemistry.* First certificate and medal, Mr. Soyer; second certificate, Mr. Thomas.—*Midwifery.* First certificates and medals, Mr. Baxter and Mr. Bousfield. (The papers presented by these two gentlemen were so good that the Professors decided to give a medal to each. The second medal was given by Dr. Suckling).—*Forensic Medicine.* First certificate and medal, Mr. Baxter; second certificate, Mr. Bousfield.—*Materia Medica.* First certificate and medal, Mr. Bousfield; second certificate, Mr. Sainsby.—*The Warneford Medal.* For an Essay, setting forth the Power and Wisdom of God in the Creation, Mr. Lloyd.

EDUCATIONAL VACCINE STATIONS. In order to provide for the granting of those special certificates of proficiency in vaccination which, under the regulations of the Privy Council, are required to be part of the medical qualification for entering into contracts for the performance of public vaccination, or for acting as deputy to a contractor, the following arrangements are made:—1. The vaccinating stations enumerated in the subjoined list are open, under conditions appointed by the Privy Council, for the purposes of teaching and examination. 2. The public vaccinators officiating at these stations are authorised by the Privy Council to give the required certificates of proficiency in vaccination to persons whom they have sufficiently instructed therein. 3. The public vaccinators to whose names an asterisk is prefixed are authorised to give such certificates after satisfactory examination to persons whom they have not themselves instructed:—*Mr. Marson (Principal Station), Surrey Chapel, Blackfriars Road: Mr. Gerrans (North West Station), Lisson Grove; Mr. Jordan (West Station), Lower Belgrave Street; Mr. Lewis (East Station), Well Street, Wellclose Square; Mr. Simpson (North Station), Tottenham Court Chapel, Tottenham Court Road. *Mr. Garner, the General Dispensary, Birmingham. *Mr. Sheppard, St. Augustine's Place, Bristol. *Mr. Gibson, Nile Street, Hull. *Messrs. Steele, Wilson, and Fenton, acting conjointly, or at least two of them together, the Ladies' Charity, Parr Street, Liverpool. *Mr. Guest, Rochdale Road, Manchester. *Dr. M'Nay, Bricklayers' Hall, Castlegarth, Newcastle. *Mr. Allanson, St. George's Terrace, Sheffield. *Dr. Husband, the Royal Public Dispensary, Edinburgh. *Dr. Dunlop, the Hall of the Faculty of Physicians and Surgeons, Glasgow.

DECREASE OF THE AGRICULTURAL POPULATION. Mr. Purdy, in a paper read at the recent meeting of the British Association for the advancement of Science, said that, at the last census, it was found that the only counties which had decreased in population were the agricultural ones of Cambridge, Norfolk, Suffolk, Wilts, and Rutland. To exhibit the decrease in the population ascribed to the class "agricultural" in the census of occupiers of 1861, the writer divided the kingdom into three sections: 1. 24 counties of highest rank, where upwards of 20 per cent. of the adult population are occupied in agriculture; 2. 16 counties of intermediate rank, where over 10 and under 20 per cent. are so employed; and 3. 5 counties of lowest rank, where less than 10 per cent. are so employed. Between 1831 and 1861 the first section of counties had increased 1,093,000 or 22 per cent. in the population generally; the second section, 1,651,000, or 39 per cent.; and the third section, 3,425,000, or 73 per cent. In 1831 the population was pretty equally divided between the three sections; the

respective proportions were then 5.0, 4.2, and 4.7. In 1861, however, in consequence of the unequal rate of increase, these ratios became 6.1, 5.9, and 8.1. In 1851 the number of persons in England and Wales aged 20 years and upwards occupied in agriculture was 1,576,080; in 1861 the same class had fallen to 1,531,275—a decrease of 44,790 persons, or nearly 3 per cent. The greatest decline had taken place in the south-western and the Welsh divisions. In the former, consisting of the counties of Wilts, Dorset, Devon, Cornwall, and Somerset, the decrease was 20,381 or 9 per cent.; and in the latter, including Monmouthshire, it was 13,285, or 8 per cent. The ratio of adults engaged in agriculture in England and Wales on the adult population generally in 1851 was 16.1 per cent., and in 1861 it was 13.9 per cent., which was therefore a decline of 2.2 per cent.; in other words, 22 in every 1,000 of the adult population had, between 1851 and 1861, ceased to belong to the agricultural class. Sussex had lost 2,698, Hants 3,412, Berks 1,158, Herts 1,095, Bucks 1,048, Suffolk 3,306, Wilts 2,837, Dorset 1,343, Devon 9,473, Cornwall 3,917, Somerset 2,809, Gloucester 1,166, Northumberland 1,265, Cumberland 2,099, Monmouth 1,089, South Wales 4,530, and North Wales 7,666. The percentages of decrement were, in Devon 13.3, North Wales 11.0, Cornwall 10.5, Hampshire 8.8, Cumberland 7.7, Monmouth, 7.6, Wilts 7.3, Sussex 6.5, Suffolk 6.4, Dorset 5.6, South Wales 5.6, Hants 5.4, Bucks 5.1, and Northumberland 5.1. Eleven counties increased their agricultural population. Salop had increased 1,226 or 3.5 per cent., Worcester 1,281 or 5.7, Leicester 1,371 or 6.0, Lincoln 2,139 or 3.3, Chester 1,550 or 4.2, and Lancaster 5,336 or 7.1 per cent. Lancashire in 1861 employed a larger agricultural population than any other county. The number of adults so engaged was 80,222. The West Riding of Yorkshire employed 77,168, and Lincoln, a purely agricultural county, 67,357. Though the adult agricultural population of Lincoln was 11,000 less than Lancashire, the return of the farmers' profits in 1859-60 in the former county exceeded those of the latter by £1,000,000. Excluding from each county those persons placed under the agricultural class, but who, in fact, worked in woods or in gardens, it is found that in Lincolnshire there was 65,849, and in Lancashire 76,496 adults engaged in agriculture properly so-called. The diminution of the agricultural population was attributed to emigration and to the attraction of higher wages in other industries; though a considerable advance had taken place of late years in the money wages of the farm labourer. Contemporaneously with the general advance of agricultural wages large tracts of waste land had been enclosed for cultivation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY. North London Medical Society.
THURSDAY. Harveian Society of London, 8 P.M. Mr. J. Z. Lawrence will exhibit his Reflecting Ophthalmoscope.
FRIDAY. Western Medical and Surgical Society of London, 8 P.M. Inaugural Meeting.
SATURDAY. Association Medical Officers of Health.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—OCTOBER 3, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys..1037 Girls.. 898 }	1395 1274
Average of corresponding weeks 1853-62		1796 1150
Barometer:		
Highest (Sun.) 29.965; lowest (Th.) 29.141; mean, 29.090.		
Thermometer:		
Highest in sun—extremes (Sun.) 95.8 degs.; (Fri.) 65.4 degs.		
In shade—highest (Wed.) 63.2 degs.; lowest (Wed.) 35 degs.		
Mean—52 degrees; difference from mean of 43 yrs.—1.8 deg.		
Range—during week, 28.2 degrees; mean daily, 16.3 degrees.		
Mean humidity of air (saturation=100), 84.		
Mean direction of wind, S.W.—Rain in inches, 0.78.		

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

MR. PRIMROSE BOLTON has not sent his address.

CARBUNCLE AND DISEASED MEAT.—SIR: The police report copied into your JOURNAL, which attributes to me the opinion that there is a connective, as a cause and effect, between the carbuncle and unsound meat, is without foundation. All that I was called upon for by the prosecution in this instance was to prove, in accordance with the recent Act of Parliament, that the meat was that of diseased animals. Not a word was said as to the effect of such food on the human system.

On a previous occasion, another magistrate, Mr. D'Eyncourt, asked me my opinion as to the "new theory", which attributed the more frequent plague of boils to the consumption of diseased meat. I told him that, personally, I had never traced the disease to this cause; but that Professor Gangee had collected some striking evidence on the point; and that some German physicians had made out the transference of carbuncular murrain (*milsbrand*)—a disease from which our cattle are, as yet, free—to the human subject, by the consumption of the diseased flesh. The only cases of injury to health which I have traced to eating diseased meat have been cases of gastric irritation which, in two cases, I was inclined to attribute to the drugs the animals had taken just previous to being slaughtered.

I am, etc.,
SETTIMUS GIBBON, M.D.

8, Finsbury Square, E.C., Oct. 1863.

ONLY A FLEA-BITE.—SIR: In reference to the letter with the above heading in your last number, signed M.R.C.S., I would suggest the use of camphor. Small muslin bags of camphor distributed about the wardrobe and the drawers where linen is kept, and a small lump or two in different packets about the person, will, I think, keep off those delicate attentions of which your correspondent complains. I am, etc.,
South Petherton, October 7th, 1863. HUGH NORRIS.

MR. FRIDHAM'S paper will appear shortly.

COMMUNICATIONS have been received from:—MR. FURNEAUX JORDAN; MR. JAMES ROBERTSON; MR. H. LEE; DR. HERBERT BAKER; MR. R. S. FOWLER; MR. CURGENVEN; DR. BRUSH; DR. HESLOR; MR. C. E. HOBSON; DR. PARKES; DR. SYDNEY; DR. LIONEL BEALE; MR. T. L. FRIDHAM; MR. J. SPROULE; MR. ISAAC BAKER BROWN; MR. T. A. F. SCOTT; DR. J. H. GLADSTONE; SECRETARIES OF THE WESTERN MEDICAL SOCIETY; MR. F. D. FLETCHER; MR. A. NAPPER; MR. BRODHURST; DR. GIBSON; DR. H. NORRIS; MR. J. K. SPENDER; MR. T. P. PICK; and MR. T. JONES.

BOOKS RECEIVED.

1. A Practical Treatise on Ezema. By T. McCall Anderson, M.D. London: 1863.
2. The Surgical Diseases of Children. By Thomas Bryant. London: 1860.
3. Guy's Hospital Reports. Third Series. Volume IV. London: 1863.
4. Diphtherial Nerve-Affections. By E. H. Greenhow, M.D. London: 1863.
5. The Laryngoscope: Illustrations of its Practical Application, and Description of its Mechanism. By George D. Gibb, M.D., M.A. London: 1863.

Introductory Address

DELIVERED AT THE OPENING OF

ST. MARY'S HOSPITAL MEDICAL SCHOOL,
OCTOBER 1, 1863.

BY

W. O. MARKHAM, M.D., F.R.C.P.,
PHYSICIAN TO THE HOSPITAL, ETC.

GENTLEMEN,—I have this year accepted the honourable task of delivering the Opening Address of our Medical School; but not without considerable misgiving, for I really cannot but consider the undertaking a difficult one to accomplish satisfactorily. What is there connected with the study of medicine, having reference to the duties of the student and the duties of his teacher, which has not been already again and again said, and well said, within these very walls? And what could I hope to tell you on the subject, that is not to be found recorded in the opening addresses delivered in past years by medical lecturers?

Perhaps, therefore, you will excuse me if I venture (as some of my predecessors have done) to leave the ordinary path now, through former teachings, made so familiar to us all—I mean the attempt of enforcing upon you the duties which you owe to yourselves as students of medicine; the duties which you owe to your parents, who have sent you here for instruction; the duties which you owe to your teachers; and the duties which you owe to society at large, in properly fitting yourselves by study now for the great future business of your lives.

Truly, I would believe that the students of this generation need not the enforcement on them of such lessons. I would believe that, better prepared by an improved preliminary education, they have good sense enough to feel the responsibility which rests upon them while occupied here in the acquisition of knowledge. Our medical corporations seem to have sanctioned this opinion, in that they have diminished the number of lectures which you are obliged to attend. But they have surely not done this in order that your minds and hands may be less occupied than formerly. On the contrary, you are expected now to depend more upon your own exertions, and less upon the instruction of your teachers; and to play the part rather of active learners than that of passive hearers.

I will presume it, therefore, to be a fact, that you, gentlemen, in pursuing your medical studies here, feel that you are engaged in a serious business; that you have come here as responsible men, cast much upon your own resources, with time, and intellect, and means, at your disposal, freely to prosecute a great end. I say freely; because it is your own free will to learn, and your own free will to let the precious hours of student life pass idly by. All the elements of knowledge requisite to help you to an intimate acquaintance with your profession are here abundantly laid to your hand; and at every turn you will find a teacher ready and anxious to show you how best and most profitably to use those instruments. In every department of your studies,

there will, indeed, be found for him who would learn nothing but freedom and encouragement.

Instead, therefore, of attempting to read you a homily demonstrative of your duties as students, I shall venture to occupy your attention for a short time by saying a few words in reference to a phenomenon, which is thought by many estimable members of the profession to be a deplorable error, characteristic of the present generation of medicine—I mean the existing scepticism concerning the effects of remedies over diseases. I will endeavour to show you that there is here, as in other matters requiring the exercise of our judgment, a true and a false scepticism—a reasonable and an unreasonable faith; and that the scepticism of the time, in so far as it is reasonable, is simply the search of honest and inquiring minds, guided by the light of modern discovery and modern science, in pursuit of truth. In doing this, I shall have occasion to refer especially to what seem to me to be two serious obstacles to the advance or settlement of our knowledge concerning the effects of remedies over diseases. The first consists in the unreasonable deductions which men of our profession are wont to draw from what they conclude to be the effects of the remedies employed by them in the cure of diseases; and the second is the practice, which I may surely call unreasonable, heretofore so common, and still not wholly abandoned by us, of prescribing drugs in those cases in which drugs are admittedly not required for the cure of the patient. In other words, I would point out two great difficulties with which this modern and rational scepticism has to deal—the reception of illogical deductions concerning the actions of remedies as positive facts in therapeutics; and the throwing in our way of impediments by the unnecessary giving of drugs to a better and truer knowledge of the natural courses of diseases.

Gentlemen, we are often told that we live in a sceptical age; and if by the term it is meant that we live in an age when men refuse to accept without question the dogmata of the past, merely because they are consecrated with the dust of antiquity, or have high and honoured names for their authors, I believe there is complete truth in the assertion. How could it be otherwise? The sciences alike of mind and of matter, the arts and manufactures, political creeds, the very face of the earth, have been revolutionised since the birth of the present generation of man. Who of us has not lived long enough to have seen articles of political, social, and every other kind of faith, rudely shaken; to have seen opinions long received as settled truths on matters touching the worldly—aye, and the more solemn interests of man—modified or subverted?

This generation truly has seen the world march on with giant strides in the path of civilisation, such as centuries of its former years of progress have not witnessed. Well, I suppose that in the advance of science must we look for a solution of this surprising tale. Science has subjected to her searching analysis the opinions and the credulities of mankind. She has called upon men to give an account of the reason of their opinions. She has waged, and is still waging, combat with the ignorance, and the prejudices, and the thousand vain images, which have so long kept, and which still keep, the world from a clear vision of the unclouded truth.

How, then, should medicine—an art, above all

others, based on empirical practice, on opinion, on the results of individual belief and experience—escape the questioning of an age in which opinions are being thus remodelled? Assuredly, this questioning and revolutionary spirit has passed into medicine. We cannot but recognise and accept its workings. And our duty clearly is so to direct this inquiry, as most effectually to advance the knowledge of our art.

I think you will agree with me, that never at any period of the bygone days of medicine, did science—as we now understand the term—subserve the physician's purposes in the cure of disease, either directly or indirectly. In his treatment of disease, he trusted to his own experience, and to what he could gather from the recorded experience of his forefathers. His diagnosis of diseases was most defective; his theories of their nature, for the most part, baseless fabrications; and his treatment was necessarily guided by, and on a par with, his diagnosis and his theories. But (and we surely may learn something from the lesson) his belief in the powers of his remedies over diseases was unhesitating and complete. In the application of his defective knowledge to the cure of disease, he never doubted. If the patient recovered in his hands, the remedies administered cured the disease; and if he died, still the remedies were not wrong—only the disease, the concoction of ill-humours for example, was too powerful for the remedy. The greater the ignorance of the physician in his knowledge of the nature and diagnosis of diseases, the more implicit, it would appear, has ever been his belief in the power of the therapeutical agencies employed by him in their cure. True, in all this, medicine was handled like every other branch of human study of things material. The masterly minds who then practised medicine acted according to their lights. Their generation did not grant to them those instruments and aids to better knowledge with which we have been favoured. We may, indeed, regard the past history of medicine with reverence and pride. We find recorded proofs that the very highest order of intellect has been engaged in the practice of medicine.

Our forefathers erred inevitably, because, dealing with matters of the utmost complexity, they possessed no other light to guide them through the labyrinth than experience—experience, whose fallaciousness in matters medical the father of medicine has so emphatically, and alas! so vainly, recorded. But to us science—that tree of the knowledge of good and evil—has come bearing with it its fruits of present painful doubts and difficulties, and also the full assurance, we may safely add, of great future good. It has demonstrated to us the errors of the past. It has shown us how we may struggle out of the errors which have heretofore beset the path of medicine. It enables us to judge with a something like certainty between the positive and the hypothetical in medicine. It tells us where we may walk securely, and where we must step with hesitation. What, in fact, is all this remarkable conflict of opinion now going on in the profession concerning the effects of remedies, but the struggle of modern scientific investigation with errors which have been handed down to us, and which encumber the progress of medicine? We are now, at last, beginning to learn what are the limits of our powers as curers of diseases; to moderate the powers which our fore-

fathers taught us we possessed over them; to appreciate the line of demarcation which must be drawn between what is positively true and what is possibly true, and what is positively untrue, of the effects of remedies; to distinguish more nicely between what our art can and what it cannot do in the cure of disease.

I believe that now, for the first time in the history of medicine, our art is finding something like a sure foundation to rest upon, and that (although the actual advances hitherto made by it towards the position of a science be small) it has entered on the path by which alone it can ever hope to reach that position. Our actual knowledge of disease and of its treatment, though it be limited, is still, as far as it goes (in one sense) becoming sure. Active error is now no necessary associate of medicine. We can mark where our positive knowledge ends, and where our treatment becomes experimental. We can calculate nicely the worth of the theories and the worth of the practices which we follow out in the cure of diseases. What is it, indeed, which most essentially distinguishes rational scientific medicine from barren empiricism, but this very knowledge of its imperfections, this philosophic estimate of its actual powers over diseases? Who now but the veriest quack boasts of his unlimited powers and of the infallibility of his remedies?

If our modern progress in medicine were measured solely by this negation and elimination of past errors—a supposition which assuredly I do not for a moment admit—it would have been immense. For, how can we ever hope to lay the foundation of a true theory and practice of medicine, until all the vicious theories and practices which have directed, and of course viciously directed, the hand of the practitioner to his work, have been cleared away? The fermentation which medicine is now undergoing, under the agency of modern science, is, as I see it, a process of its purification from the errors which have become mingled with and have corrupted it, during past ages. We need not, then, be surprised that, whilst this elimination of error is going on, our progress in a positive sense should have been but small; why we have, as yet, made but slight advances towards a knowledge of the essential nature of diseases, and of that kind of treatment of them which may be called specific.

We of this generation cannot hope, it is true, to witness the consummation of which I have spoken, the elevation of medicine to the rank of a science. We must be contented with the humble task of assisting in the removal of the obstacles which have hitherto concealed its true features, and which still beset its progress; we must be content to collect materials for the reconstruction of the building. We must, I fear, learn humility, and moderate our pretensions as curers of diseases, casting aside that false goddess which men of our profession have so long and vainly worshipped. We must be satisfied with that true and legitimate knowledge which comes to us as the offspring of rational scepticism enlightened by science. We must subject the daily and ordinary methods which we employ in the treatment of diseases to the test of a reasonable inquiry; and when we have done this, must then ask ourselves how far they are really and in truth worthy of the full and unhesitating confidence which we repose in them, remembering that the profoundest belief of the

physician in the efficacy of the remedy which he administers, imparts no real curative powers to it. Our medical opinions must, in fact, like other opinions upon which action is taken, be passed through the fire of rational inquiry.

The source of the deepest errors which have ever attached themselves to medicine may, I believe, be traced to the overweening confidence which men of medicine have placed in what is called their experience—that infallible oracle, from whose dictum, alas! there is often no appeal. Men have not always sufficiently appreciated the real value of the words, medical experience. They have been content to bring into immediate relation, as cause and effect, the two extreme factors of the problem—the giving of the drug and the recovery of the patient—leaving out of the calculation the infinite number of disturbing causes which affect and interfere with what is in truth the experiment they are watching—the effects of a remedy over disease. Does not every page of the history of medicine bear proofs of the fact that the medical man has ever been over-hasty in attributing the cure of the disease directly to the effects of his remedy—too readily concluding that the result, the cure, was a positive effect of the cause, the remedy; instead of being, possibly, the mere sequence of an antecedent? I need not stop to point out how complicated is, in fact, the character of most diseases; how infinite the variety of accidental agencies that are at work in the body, inherent in the constitution of the patient, or to which he may be temporarily subjected from without, all or any of which may interfere with and modify the natural or ordinary progress of disease, or interfere with its progress at any one of those numerous periods, or series of links which form the chain of the diseased process. I only refer to them to show how irrational we are, when, in the satisfaction of this most complicated problem, we are content to draw positive conclusions concerning the effects of remedies from the knowledge obtained through a mere personal (and, therefore, most limited) experience of their actions.

If it be not to this unreasonable, this illogical mode of drawing conclusions, that we must ascribe the extraordinary differences of opinion held by equally capable observers concerning the effects of remedies, I really know not whither to look for an explanation of the unfortunate fact. You know, gentlemen, that when, in the case of any particular disease, the treatment of the present day is opposed *toto calo* to the treatment of the past, an explanation is found in what is called a change of type in the nature of the disease. For example, men bled in other days, I suppose I may say from the time of Hippocrates down to the beginning of the present generation; but they bled not now in inflammatory diseases. And why? Because diseases have changed their type! Doctors who bled then were right, just as also are doctors who bleed not now. I know not who invented this *deus ex machina*, nor will I here stop to argue upon his worth. Horace, as you will remember, objected to the introduction of such violent powers on the scene, unless the difficulty were so great as to be otherwise incapable of a satisfactory solution. I will not, however, draw any illustration of the point in hand from the differences of treatment of the past and of the present day. I will content myself with begging you to call to mind

the profound—I would almost say the melancholy—differences in treatment which, in the case of acute diseases, characterise the practice of men of equal capacity and of equal honesty, at this present day, in cases where change-of-type theory cannot interpose its subtle explanation of the difficulty. Surely I need no other proofs of the statement that our deductions must be somewhere illogical, than these very discordances of opinion. Nor need I stop to illustrate the fact of these discordances. I apprehend that they are spread broadcast through the pages of our modern medical literature, and well known to us all. But how, it may be asked, are we to emerge from the difficulties which surround us? One source of instruction is, I fear, almost closed to us; and that is, the observation of the natural progress of disease. Yet I know not how we can ever arrive at any completely satisfactory results respecting the effects of remedies until we have determined what is the natural progress of disease—the course which diseases would follow, if left to work their way in the body without interference. This source of instruction, for obvious reasons, has been hitherto almost untouched, though manifestly the most important additions to our therapeutical knowledge are to be derived from it. I think, however, that we may, independently of this source of instruction, by a careful and logical comparison of the value of our present methods of treating, obtain a much more accurate estimate of their real value than we at present possess.

Let me, therefore, venture to point out what, as I think, may be considered as the proper and only test by which we can determine what is a therapeutical fact founded on experience; and then consider how far our daily practice is founded on, or is in accordance with, such rational experience. I believe that a therapeutical fact, to be worthy of the title, must have something of the following definition. It should be the resultant of very numerous observations made by fitting and capable inquirers, who, after due inquiry, have arrived each at a like conclusion—the conclusion not being contradicted by the observation of other equally capable observers. Every practical deduction in therapeutics, which will not bear this test, seems to me to deserve the title of irrational, in so far at least as it is accepted and acted upon as a positive fact. The wide and uncontradicted acceptance of the deduction alone gives it a stamp of genuine value—entitles it to the name of a fact. Are we not, indeed, reasonably and logically forced to the conclusion, that the real virtues of a remedy have yet to be decided, so long as the experience of half the medical world applauds its use, and the experience of the other half condemns it as useless; when men of equal honesty and equal capacity are totally opposed concerning its use? Is it not, I ask, illogical, in the satisfaction of this most complex problem—the effects of remedies—to permit our personal opinions, the deductions of our limited experience, to degenerate into solid convictions, so long as the experience of others has not confirmed, or is opposed to, our conclusions? Well, if this reasoning is right—and I see not how it can be disputed—there results from it this important conclusion: that in every case in which there exists (amongst competent observers) discordance of opinion of the kind spoken of, concerning the effects of a given remedy over a given

disease, the true effects of that remedy over that disease have not yet been definitely settled. It is, in truth, the tacit and partial recognition of this truth which has given birth to what I have called the rational scepticism of the day respecting the effects of remedies over diseases; and as the truth spreads, so will the consequences of irrational belief, or, in other words, error, be more and more eliminated from the practice of medicine. Surely we are daily becoming better acquainted with the lesson taught us by scientific investigation; viz., that our estimate of the real value of this or that drug, or of this or that other method of treatment, must be derived, not from what we have hitherto been too apt to regard as the unanswerable conclusions of our own personal and therefore limited experience, but from a comparative consideration of its value, as estimated by the experience of other and equally capable observers. A reasonable scepticism teaches us to measure and try our personal convictions by the convictions of others, and modestly to accept the conclusion. And am I not justified by fact in saying that all of us fall more or less into the way of gathering strong convictions from the apparent results of our personal experience, and of acting upon them after the fashion which I have ventured to call unreasonable? And no one can doubt that such a practice must be a stumbling-block to the advance of therapeutical knowledge. How can we ever hope to obtain an expression of the truth, if each of us proudly and obstinately maintains that his conclusions alone are right?

There is one other drawback to the advancement of our therapeutics, which, unless I am much mistaken, has injured our art deeply both in its scientific and in its social aspects, to which I would shortly allude. I refer to the too common practice of prescribing drugs on all occasions, whether they be or be not required by the condition of the patient. Doubtless, we are all of us, in this matter, much under the pressure of custom—under a somewhat slavish adhesion to the habits of our forefathers. We, with our better and more scientific knowledge of the nature and diagnosis of diseases, and of their natural modes of progress, are still, in the matter of drug-prescribing, living somewhat in the dark ages of medicine. In other days, the very soul of the treatment of diseases was, in all cases, thought to lie in some heroic exercise of the lancet, or in the virtue of some superdecompound bolus, or in an extraordinarily compounded draught: these things were regarded ever as essential in all cases. We, however, have learnt the error of all this, and yet we adhere to the practice, certainly in a very modified and comparatively harmless form; but still we adhere to it, and so far we allow our therapeutical practice to lag behind our scientific knowledge. We know, for example, that there are diseases in which medical treatment of the most effective kind does not involve the administration of drugs; but I put it to you, is it not a fact that the writing of a prescription is, as a matter of course, a part of every medical consultation? Does not the very word prescription mean, in our ordinary use of it, simply and solely the writing of a drug-formula? In prescribing a particular line of treatment, is not the prominent, if not the only feature, in such prescription, the drug-formula? The patient assuredly looks for the, to him, cabalistic formula, as the chief equivalent re-

ceived for his fee. He regards as of infinitely greater consequence a due attention to the taking of the physic prescribed, than he does the punctual fulfilment of those other apparently minor directions which, it may be, are in reality of fifty times greater importance, and perhaps absolutely essential to his cure. We, or rather those who went before us, have, I fear, educated our patients in the belief that the cure of diseases and the taking of drugs are in all cases things inseparable, and that the main and most essential part of the practice of medicine and the cure of disease consists in the prescribing and taking of drugs. But are we, in so far as we keep up this delusion in practice, doing justice to our patients and to ourselves? And, above all, are we thereby advancing the scientific standing and the social character of our profession? I cannot but think that our patient often positively suffers in this way, through the neglect of those other things which are recommended for his cure, and which are in reality of much greater need in his case. Not being prescribed, they are regarded as of little value. So long as the drug is regularly taken, the patient considers that he acts in sufficient conformity with the line of treatment advised for his cure. Moreover, to this unfortunate custom of ours, and to this habit of the patient, may, I believe, be in great part traced the spread of many quackeries and delusions, and especially of that most remarkable of all quackeries and delusions—I mean homeopathy. And, conversely, I am led to think that there is no better means of waging successful combat with these quackeries than the simple one of giving drugs in those cases only in which, in our opinion, drugs are actually required; and of educating our patients to a better understanding of the uses of our art, and its power. Our patients have been educated, or, at all events, have grown up, in the belief that the drugs they take are in all cases not merely elements, but the essential elements, of their treatment; and this, too, sometimes, even though the physic be as mild as coloured water, or as innocent as a bread pill; and the result is evident, and, as I think, most hurtful to our profession's reputation. If the patient recover not, he blames the drug and him who gave it, and at length loses his faith in the practice of legitimate medicine, or in the taking of drugs, which are to him convertible terms, and so rushes into the arms of the homœopaths, or of some other of the Bashi-Bazouks of medicine. I venture to think that, at this time of day, we should come to a better understanding with our patients. It surely cannot be worthy of the medicine of this day to play in any way down to the weaknesses and false imagination of the patient. And if it be indeed true, that our profession originally created the delusion in his mind, still more forcibly is the duty pressed home to us of removing the scales from his eyes.

But pray, gentlemen, do not misunderstand me. Do not suppose that I want to inculcate the idea that the cold shade of scepticism hangs over the entire practice of medicine, and that drugs are useless as remedies in diseases. Let me defend myself from such an imputation by saying, that I dare say I prescribe as many drugs as any of my colleagues do. What I ask is simply this; that we should give drugs only when we can reasonably conclude that drugs are actually required; that we should write no prescriptions of complaisance, and give no physic on

the principle "that it will do no harm, if it does no good"; and that we should educate our patients to the knowledge that the whole cure, and often the most important part of the cure of diseases, does not consist in the taking of drugs—teaching him that there is not in all cases an inseparable connexion between the physician's art and the druggist's shop.

Neither do me the injustice of supposing, because I have objected to the drawing of positive conclusions concerning the effects of remedies from the results of mere personal experience, that I mean to infer we have no positive facts in therapeutics to rest upon. I could run on for an hour, and give you examples of that kind of concordance in treatment which justly gives to that treatment the title of rational. I could give you numerous instances, I need hardly say, in which large, concurrent, and uncontradicted experience points out to us the usefulness of given remedies in given diseases. The fault which I speak of is the practice, wherever it exists, of unhesitatingly attributing to remedies virtues which, arguing reasonably, they cannot be said to possess, or which, at all events, are not yet proved of them. I would impress on your minds the cultivation of a *reasonable* faith in the powers of our art to cure diseases, and so save you from that blind scepticism—that dead sea of negation—into which unreasonable and disappointed expectations too often lead the enthusiastic. I would save you, on the one hand, from that irrational and blind credulity which finds its most perfect exposition in the insolence and unbounded promises of quackery; and, on the other hand, I would dispose you, by forming and moderating your faith in the power of medicine in accordance with the reason of the thing, from ever falling into that atheism in therapeutics which is born of an overweening and unreasonable credulity, and of broken and deluded expectations.

In so far as the practice of our art is still an experimental practice, let us, I would say, pursue it as philosophical experimentalists, not with the credulity of pure empiricism. In all cases let us fashion our belief in the power of our art in accordance with the light which we possess. In those instances in which a universal concurrence in opinion prevails, we can act in full assurance of the result. In those other cases, in which adverse opinions neutralise our own, we should act with caution, as I have said, experimentally, not blinding ourselves to the truth by an overweening reliance on what we deem the unanswerable convictions of mere personal experience. I do not ask you to sit idly by whilst disease is working its ravages. When the human body is sick, the physician's skilful art has ever its useful labours to perform. I know of no disease—I know of no phase or period of any disease—wherein the presence of the healer is not required to conduct and guide the cure; wherein he may not practise his art—do something, if you please—to the advantage of his client. My desire has been simply to warn you against the adoption of that unreasonable course in the treatment of diseases which, as I have attempted to show, deceives ourselves, deludes the subject of our treatment, and hinders the progress of therapeutics. Rather, indeed, I ought to say that I have attempted merely to put forwards a few words in favour of that rational spirit of inquiry which has already entered into and is leavening the practice of medicine—hoping thereby to assist in hastening the advance of

those good things which a rational scepticism, if read the matter aright, has in store for us. I have, indeed, been engaged in laying somewhat markedly before you facts, which have been now for some time accepted and acted upon by most of the leading and scientific members of our profession.

Gentlemen, I fear I may have already made a call upon your patience by attempting to say thus briefly what it would take many lectures to develop satisfactorily; but perhaps I may yet for a few minutes longer ask your indulgence, whilst, turning from this special subject, I address, as I feel I ought to do before I conclude, one or two special words to those of my hearers who are about to engage themselves in the pursuit of the study of medicine. I have promised to read no homily, and would venture merely to offer you one or two words of exhortation.

Let me assure you, then, if you have not already realised the fact, that your business in this school is, measured by its future consequences, a most solemn business. Let me assure you that, in truth, the whole course of your future life will be to a great extent, if not altogether, influenced by the line of action which you follow out here during these years of studentship. Believe me, it will not be the mere acquisition of a given amount of knowledge, such as may suffice to gain you the legal right to practise your profession, which you will obtain here, if you occupy yourselves well. It will be something far beyond this. It will be the fixing and the forming of your future character; it will be the establishment of steady, industrious, and laborious habits, which will hang to you through life, and be the surest groundwork of your future success in life; and it will be that inestimable prize of a high moral tone of mind, which you will win if you honestly perform your duties here. The character which you acquire here will be the die from which your future actions through life will take their impress. The evil and the good which men do not only live after, but live with them. Every vain and idle hour of a student's life I might, in this sense, liken to the broken surface of a smoothly flowing stream; a mere superficial and passing irregularity it seems to be, disappearing with the violence which produced it. But it is not so. The laws of mind and matter have here similar actions. The ripple of the water represents a motion which is a lasting and effective power. The visible signs of the perturbation may have disappeared; but the irregular motion thereby excited still exists—altered in kind, and elsewhere operating, it is true, yet ever an effective force. And just so is it with those diviner laws which preside over the moral life of man. Every violence done by him to his better nature is a disturbance whose tremulous waves will never cease to exercise, to the last hours of his life, their baneful influence on him.

Let me tell you, moreover, that the practice of medicine is a stern and rugged business; and whoever ties himself to it, as to the business of his life, must not, therefore, expect to float calmly down the stream. You must be prepared for struggles and ready to encounter hardships, and to meet with disappointments and temptations; and now is the time for preparation to meet the struggle successfully and manfully. There is no profession, I believe, which brings more trials, and I may add more consolations, to the conscientious man; there is none in which a want of conscience and a want of honesty

are so often repaid with what the world calls success; and there is assuredly none in which the performance of his daily business can better give a man the full satisfaction of a well-employed life. The business of the physician is ever to assuage the woes of humanity; never to make the worse appear the better cause.

And, gentlemen, if I allude especially to this dark side of the profession of medicine, it is because I would earnestly bid you now brace yourselves for the future occasion, by training your minds to an unswerving and honest performance of the work cut out for you here. So study now, that you may become hereafter honest and scientific practitioners of medicine. The greatest safeguard which you can possess against the contagious influence of the quackeries and bad practices which beset the profession, both from within and from without, is a well grounded and scientific knowledge of your art. But such a knowledge you never will attain, if you miss the golden opportunity which now lies before you. It is a consoling fact, that men of science do not practise quackery in medicine. The most successful of the quackeries of the day, homœopathy, is a striking illustration of this fact. I never heard of a homœopathist possessed of a name known in the smallest corner of the wide world of science. Of the great makers of impossible cures, and of the successful operators in the broad field of human credulity, there is not to be found a man who has done a single deed, or made a single discovery, tending to the progress of medical knowledge, or who has left behind him a name honoured by any whose praise is of price. Where is the individual of them who has a reputation to leave behind him, such as the meanest member of our profession would care to have as a legacy? We look in vain for the good thing that ever came out of these quackeries. We see the names of Harvey, and of Jenner, and of a host of such like worthies, inscribed on the edifice of medicine; and we mark that at all times men of our liberal profession have disported and distinguished themselves in the different fields of knowledge. Our profession has produced illustrations in chemistry, in botany, geology, mathematics, theology, in every branch of human learning and study; but we look in vain for one single example in this way, which might serve to throw some slight relief over the dark shadow and disgrace of quackeries. Be then scientific, honest, and conscientious students now, and you will lay the surest foundations for becoming honourable and scientific practitioners hereafter. As men of science, you can never honestly fall into the deceits of charlatany; and as men of science, you will find it hard to let your moral sense grow dumb in that direction. The voice of self-interest may tempt you in many a form; you may have to choose between the hard path of an ill-requited but honest labour, and the ready road which leads to a certain sort of popular repute and professional dishonour. Get ready, therefore, for the battle of an honest life, by doing your work honestly here. If, indeed, I were asked how you might best act now so as to ensure welfare in after-life—not welfare in its restricted and ignoble, but in its perfect sense—I should say, keep the law of duty now ever before you. Let it be your never failing pillar of light. Study conscientiously—religiously, as the Frenchman forcibly puts it. And when you have

gained this conscientious, this religious knowledge of your profession, and have, as members of society, to bring it into practice, use it ever conscientiously. Be, at all events, brave and on the square with your conscience to the last. Your success in life may not equal your hopes or your deserts. It is not in man to insure the success of this world. The best and the wisest of us may fail in the struggle. But we have our consolation even then. To gain the world's applause, and to snatch its fleeting spoils, is not man's sole and proper business here. Immortality smiles forth on the scene, and beckons him ever on in the race for those eternal honours, which the world can neither give nor take away—the prize which all may strive for, and no one strive in vain. So long, gentlemen, as you steadily obey the dictates of that inward monitor, you may, like the ancient knight of chivalry, when all is lost in the battle, still proudly boast that nothing is lost, honour and conscience being to the last without reproach.

LAST DANISH CENSUS. The whole Danish monarchy has a population of somewhat about 2½ millions. The increase of the population during the five years immediately preceding the census was between 5 and 6 per cent. The largest town is Copenhagen, with 155,000 inhabitants; next, Altona (45,000); then two with between 15,000 and 20,000 (Kiel and Flensburg), five between 10,000 and 15,000 (Odense, Schleswig, Aarhus, Rendsburg, and Aalborg), and 14 between 5,000 and 10,000 inhabitants. The average population on a Danish square mile (about 18 English) is 2,532. The increase in the population by births has, on an average, been at the rate of 165 children to every 1,000 women between 20 and 50 years of age. Out of the above number of children one in every 10 or 11 has been illegitimate, and between 4 and 5 per cent. stillborn. Twins have been born in one case out of 69, three children once in 5,783 births, and four children at a birth have come into the world only once in 211,062 cases.

THE FOWLS WE EAT. We have domesticated some nine species of birds, to the advantage of the public diet, chief of which is the common fowl, never mentioned in the Old Testament or the Homeric poems, and which, probably, came to us through Persia from Hindostan. Chanticleer and his dame were known at Nineveh; they were represented on Syrian monuments; and they are heard of in Greece, a little later than the battle of Marathon, from Theognis. But neither Helen nor Iphigenia ever tasted the wing of a chicken. Whether in the wild or domestic state, they were wholly unknown on the continent and islands of America, and they owe their presence there to Columbus, as in New Zealand to Captain Cook, and in Australia to later navigators. We ourselves declined to eat them in the time of Julius Cæsar, though even then we cherished them for cock-fighting, like the Mahomedans and Malays. The gallinæ we got from Africa, pheasants from Asia Minor, and peacocks somewhat later through Persia from India. The turkey (so miscalled) is the gift of the New World, and the small fowl designated bantam really comes to us from Japan. Of course, Shakespeare's carrier in *Henry the Fourth* is guilty of a slight anachronism when he complains that "the turkeys in his panniers are quite starved." As to pigeons, ducks, and geese, these are the mere scum of Mr. Crawford's fleshpots, of which he has various things to say, contemptuous but pleasant. "The domesticated birds are very far from having proved of equal utility to man with the domesticated quadrupeds. Their strength is nothing, their tegument of small comparative value, and their flesh more or less a luxury, viewing the comparative cost of rearing them.

Transactions of Branches.

BATH AND BRISTOL BRANCH.

ON A CASE OF WASTING PALSY.

By JOHN KENT SPENDER, Esq., Surgeon to the Eastern Dispensary, Bath.

[Read April 30th, 1863.]

I PROPOSE to relate a case which illustrates some of the most interesting features of what is called "wasting palsy".

Martin L., aged 42 in November 1862, residing in Trim Street, Bath, a married man and a shoemaker, was seen first at the Eastern Dispensary in June 1862.

April 1863. He is a man of good muscular conformation, moderately well nourished, with dark hair and thin anxious countenance. He is five feet five inches in height. His respiration is regular and tranquil; the pulse 80, soft and feeble. The general surface is pale, and the skin is usually dry. The tongue has a natural appearance, with the exception of a slight fur on the filiform papillae.

He complains of weakness and wasting of the biceps muscle of the right arm, which prevents full flexion of the forearm on the upper arm of that side. There is no history of syphilitic disorder nor of metallic poisoning; and the urine is natural.

Rather more than eleven years ago, he first found a weakness in shaving; but for a short time before this, while in domestic service, he had a difficulty in grasping spherical objects, such as a tumbler. He is quite sure that he has never had a blow on the arm; and that he has never suffered from a strain or from any other violence to the limb. When an apprentice to the trade of shoemaking, at the age of 16, he could not put the awl in as quickly as other lads, and consequently could not get through so much work. Up to 1847, he followed his own employment as a journeyman trader without interruption; but found a gradually increasing weakness in the upper arm and in the movements of the wrist-joint; so that his shopmates noticed a peculiarity in his "hammering". In 1848, he entered domestic service in London; but was obliged to leave his place on account of inability to perform manual duty. After that time, he pursued his usual calling without serious difficulty until 1853. In 1856, owing to a rapid increase of weakness, he consulted Dr. Jenner at University College Hospital; and subsequently came under the care of Dr. Russell Reynolds, by whom he was carefully examined. He took cod-liver oil, and was "galvanised" eight or nine times. From this treatment, he says that he derived considerable benefit; expressing it in this way, that he could now "hold the hair in his right hand when at work"; and this improvement continued for two or three years.

In 1859, he returned to Bath, and soon found a return of his old symptoms. He tried douching with the thermal waters without relief, and eventually abstained from all medical treatment, until coming under my notice in June 1862.

PRESENT CONDITION. *a. On the right side.* The biceps is very much wasted; the brachialis anticus are much reduced in size. The flexor muscles of the forearm are smaller than usual. He can flex the forearm to a right angle with the upper arm; but, when in that position, if he wish to bring the former to a more acute angle, he is obliged, by a swinging movement and backward action of the body, to let the forearm fall on the upper arm by the mere action of gravity. When the forearm is retained at a right angle, he says that it feels like a "dead weight",

owing to the suspensive function of the biceps muscle being impaired.

b. On the left side. Here we have a curiously mechanical state of things, due, not to any muscular atrophy, but to a condition of tonic muscular contraction. The upper fibres of the rhomboid muscles, and the fibres of the levator anguli scapulae, resemble tight hard cords; they draw the superior internal angle of the scapula towards the spine, and fix it there almost immovably. When the man stands quite upright, with the arms dependent by his side, this angle of the scapula is tipped up, so as to be elevated more than an inch above the back. When the arm of the same side is brought forward, the muscles connecting the extremity with the lower part of the scapula would naturally rotate the latter bone forward, turning it upon an imaginary horizontal axis passing through its spine. But, in this man, as the superior internal angle of the scapula is tied down, so to speak, to the vertebral column—the latter even reciprocally curving out of place to meet the scapula—the lower part of the scapula no sooner moves forward with the arm, than it is again dragged back by the tight muscular cords which fix the upper angle. When the arm is stretched out at right angles with the body, the vertebral side of the scapula stands out from the back as a narrow prominent ridge. The muscles of the left side are not invaded by atrophy in any appreciable degree; in fact, the left arm is larger than the right, probably from the habitual attempt to do double duty.

Dr. W. Roberts, in his monograph on *Wasting Palsy*, teaches as the essential etiology of the affection, destruction of muscular substance, and consequent loss of power; and that no lesion acting downwards from the nervous system to the muscles can produce the results observed. All that Dr. Roberts can say about this destruction of muscular tissue is, that it is a fatty and granular degeneration, similar, in its anatomical bearings, to what is observed in fatty heart. It is, of course, easy to use the technical phrase, "error of nutrition." But this ruin of muscular fibre involves injury to the extreme branches of the motor nerve; indeed, we have only to refer to the last volume of Dr. Beale's *Archives of Medicine*, to find that we know with much more certainty now than we did when Dr. Roberts wrote his book, five years ago, that the "peripheral expansions of motor nerves are essential constituents of muscle"; and that there is an "organic connexion between the ultimate ramuscles of the nerve-tubule and the sarcolemma of the muscular fibre, so that lesion of the one necessarily involves lesion of the other." Then the morbid movement creeps up—or may creep up—until it reaches the anterior roots, and even the spinal cord; and another reason why the nerves are prone to morbid change is, that every organ, gland, or tissue, wastes when brought to compulsory rest; and when a limb is deprived of motion by muscular atrophy, motor impulses cease to be transmitted along its nerves.

The man whose case has been related, and who is now presented to the meeting, is suffering from what Dr. Roberts calls the primary or direct phenomena of wasting palsy—destruction of muscle, and consequent loss of power. He has no neuralgia, cramps, nor tremors. The malformation on the left side of the body began long before the first symptom of muscular atrophy of the arm; and is attributed by him to a "fall" when an infant, though no certain information can be obtained on this point, as his parents are dead, together with every one else who knew him as a child. And it seems clear that the destructive wasting of muscle on the right side is unconnected with any history of overwork, violence, or special dyscrasia.

POSTSCRIPT. I have this day (October 6th) visited the patient, and find that the disease has not sensibly progressed during the last six months. He wears a wrist-

band of elastic material. I regret to say that no medical treatment has been of any avail. In the current number of the *British and Foreign Medico-Chirurgical Review*, is a noteworthy paper by Mr. Lockhart Clarke, detailing the results of a *post mortem* examination of the spinal cord of a man who died apparently from atrophy gradually invading the muscles subservient to respiration. So far as the case goes, the connection of "wasting palsy" with structural disease of the spinal cord seems unquestionably established.

EAST ANGLIAN BRANCH.

OBSERVATIONS ON THE VALUE OF SOME OF THE DIAGNOSTIC SIGNS OF INCIPENT PHTHISIS, AND ON THE REMEDIAL MANAGEMENT OF THE DISEASE GENERALLY.

By C. M. DURRANT, M.D., Physician to the East Suffolk and Ipswich Hospital.

[Read at Yarmouth, June 26th, 1863.]

AFTER all that has been written upon phthisis, but little, it may be thought, remains to be deduced from so fully investigated a subject. Still, I believe that, if it were possible to collect the personal observations of a large number of those who have carefully watched and treated the disease, a valuable amount of practical information would yet accrue to the profession.

Fatal as is the termination of the malady in the great majority of cases, most observant physicians are now, I believe, ready to admit that phthisis does, more frequently than was formerly supposed, yield to remedial management: further, that in a few unmistakable cases, it does pass through its stages even to the extent of cavity, which does ultimately, by the process of cicatrisation, yielding to the assisted powers of nature, leave, with a healthy enjoyment of life, a fairly useful condition of lung. This fact has been recently prominently brought before me in the history of a sailor, whose case I had an opportunity of watching from the commencement. This man, in whom all the phenomena of the disease, both physical and general, were unmistakable, is now apparently recovering; the cavity having completely cicatrised, leaving subclavian flattening; the respiration around the spot returning, but of course remaining harsh and tubular; while the general symptoms are all rapidly giving place to returning health and strength.

It is not my intention to enter upon the general symptoms of phthisis, too well known as they are to all, but to refer briefly to some of those physical signs which appear to demand most attention in reference to its early diagnosis.

First, I would mention *insufficient expansion and flattening of the subclavian regions*, particularly if they be marked by inequality in the two sides. This is a sign less observable in the very earliest stage of tuberculous deposits, and more frequently obtains when a certain amount of pleuritic adhesion has been excited by the existing tubercles. It is, however, when present, a valuable sign, and not likely to mislead unless extensive pleuro-pneumonia in a more or less chronic form be present.

Tactile vibration is less to be depended upon, as the vocal thrill may be conveyed by other than tuberculous condensation, as by glandular enlargements in the neighbourhood, or, indeed, by any lesion producing unnatural density of the lung.

Dulness on percussion is a most important indication of phthisis; but, as the diminution of clearness varies so much in the different stages of the disease, it is necessary that the ear be educated to the degree of dulness, and also that the examiner percuss for himself, and not trust to the uncertain sound conveyed by the perform-

ance of this act by another person. To obtain a satisfactory and correct result from percussion, both the eye and the ear must act in unison, and the force of the stroke must be apportioned to the tone elicited, the extent of which, practice and experience will soon determine.

In the earliest stages of phthisis the clearness of sound on percussion may be very slightly diminished, especially if the deposit be chiefly scattered through the centre of the apex, and the surface of the lung be tolerably healthy. In these doubtful cases, it will be well to percuss at the close, both of a forced inspiration and also expiration, as the latter act, by reducing the size of the lung, will facilitate the detection of the deeper seated deposit. In some cases of acute phthisis, and in others with a partially emphysematous condition of the apices, the natural sonority of the chest will remain unaltered.

We shall generally, however, find that a diminished clearness of percussion-sound, most evident above, and becoming less pronounced as we proceed downwards, to be a tolerably sure guide taken in addition to the other general and physical phenomena of the disease. It must not be overlooked that the apex of one or of both lungs is occasionally (and I believe more often than is generally suspected) the seat of latent pleuritic deposit, and also of pneumonic condensation. These cases will require much care in diagnosis; and the result of treatment, in addition to the general history, may alone be sufficient to clear up the sometimes doubtful point. I shall not allude to the amphoric and cracked metal sounds elicited by percussion, as these refer to the more advanced stages of the disease with which we are not at present concerned.

As of percussion, so of auscultation, I refer only to the comparative value of those signs said to be indicative of early phthisis.

Diminished murmur is generally regarded as one of the earliest auscultatory characteristics of incipient phthisis; and in the majority of instances it is so. As it may have either a superficial or a deep seated origin, it is well in all cases at first to examine the two apices under natural breathing, and then to ascertain the comparative difference existing in the two sides, by moderate as well as by deeply forced inspirations. By following this plan as a rule, the diagnosis will be much facilitated.

Harsh, tubular, and exaggerated breathing is also a valuable sign of commencing tubercularisation; but that we may read its significance aright, we must be careful to ascertain that the increased breath-sound is not supplementary of diminished lung-volume at a distance, rather than a result of local condensation by tubercles in the suspected part.

Jerking respiration sometimes obtains as an early indication of tubercle, and exists at a stage when every evidence which can be brought to bear upon the subject is of value. I have met with two or three cases, in which this phenomenon was the only precursor at the time of what was to follow; the correctness of its import being verified by the subsequent progress of the case. It must be borne in mind, however, that jerking respiration may exist, independently of tubercularisation.

Prolonged expiration, if confined to the affected side, may be a sign of some value occasionally; but, like the former, it is not to be universally depended upon. It may arise from many causes besides tubercles, and it is not an uncommon attendant in some individuals upon their natural state of breathing.

Transmission of the heart's sounds, unless limited chiefly to the affected spot, is a very uncertain indication of tubercles. The density of the cardiac walls, as well as the varying thickness of the costal parietes, and also the excitable condition of the nervous system of the patient, all tend to diminish the value of this feature, as a

diagnostic auxiliary of early phthisis. If, however, the cardiac sounds be decidedly louder at the right apex than at the left, accompanied by other signs of the incipient disease, we may accept this as additional evidence of the probable existence of deep seated tuberculation.

The occasional existence of a *vascular murmur beneath the clavicle*, or having a pulmonic origin with its greatest intensity between the second and third left ribs, near their junction with the sternum, has been considered a sign of existing tubercles. It may be, and doubtless is, caused sometimes by the pressure of tubercular disease upon the subclavian or pulmonary arteries; but I have so frequently heard this murmur, when no indications of phthisis obtained, that I cannot regard it as a sign upon which much dependance should be placed.

The *rhonchi* which are of most value in the diagnosis of incipient phthisis, are the dry crackling and the crepitating; to which may be added the occasional click which is heard in the subclavian regions. All these, in addition to the other signs referred to, and especially when confined to one or both apices, render the probability of existing tubercle almost certain.

Before leaving the subject of auscultation, there is one point to which I would allude, notwithstanding that to some it may appear to be trivial and of no moment. It is the advantage of warming the end of the stethoscope in cold weather, before applying it to the chest. Again and again have I seen, in addition to the discomfort of the patient, the result of the examination rendered almost nugatory, by the contraction of the muscles, and by the sudden shivering which the application of a cold stethoscope has produced. Trivial as this matter may appear, it should not be disregarded. Equally to the advantage of the examiner is the propriety, before auscultating young children, of allowing the little patient to become reconciled to the instrument before applying it to its chest.

On the therapeutic management of early phthisis, my observations will be brief. There is no specific, and one rule should be prominently kept in mind in the treatment of all cases of the incipient form of the disease; viz., the attention to the improvement of the general health; and the removal of gastric derangement, if it exist, is the *sine quâ non* of success, and should claim the fullest consideration.

Cod-liver oil deservedly holds its place; but it is often unfairly dealt by, in consequence of its being prescribed in cases where the tongue is coated, and the stomach is quite unfitted for its reception; and of what I think is also an error, viz., that the commencing doses are too large, and the stomach is not permitted to become gradually accustomed to its use. I have often succeeded in having it taken with advantage, by commencing with drops, when even teaspoonful doses at first would have been rejected. The medicine from which I fancy that I have seen most benefit accrue, is the iodide of potassium, in combination with the bicarbonate and chlorate of potash, with a sedative and the aromatic spirits of ammonia. This medicine acts favourably upon the digestive organs, and certainly improves the cachectic condition of the patient. If there be hæmoptysis, it will be well to omit the ammonia, as likely to interfere with the consistence of the blood. If anæmia with a clean tongue be present, the syrup of the iodide of iron may with advantage be added to the mixture; or the sulphate, with or without quinine in the form of a pill, may be administered with each dose. I have tried arsenic (lately recommended as a tonic in phthisis), but I was not satisfied that any particular advantage resulted from its use.

Sedatives in the form of morphia, are perhaps the best calmatives that we can employ. Local depletion may sometimes be advisable, particularly if much congestion around the suspected tuberculation exist; but there are

few cases in which greater benefit will not be derived from the application beneath the clavicle of a small blister. I believe that there is no form of counterirritation so effectual in incipient phthisis, when the disease is of limited extent, as repeated small blisters. If the disease be scattered over a large portion of lung, the croton oil, or acetic acid with turpentine, may be, and probably is, a better application.

The regulation of the diet of a phthisical patient is an important element in the general management of the disease; and, while nutritious and easily digested food should be allowed liberally, it is most necessary carefully to avoid overloading the stomach with too large a quantity of any kind of food taken at one meal. This applies particularly to the article milk, a diet considered *par excellence* as well suited for the consumptive invalid, but which is frequently rendered heavy and indigestible from its coagulation by the acids of the stomach, as well as from the quantity taken. A well dressed mixed diet, including fish and vegetables, is perhaps the best; while for breakfast, eggs and toasted bacon, with a liberal supply of cream in the tea, may be allowed if the appetite and digestive powers admit of its being taken. Of the wines, Manzanilla sherry is perhaps the best; next claret, and then champagne. When malt liquors are taken habitually, sound draught porter, or a smaller quantity of Guinness's stout, or bitter ale if it be preferred, may be allowed. As a rule, I think that porter agrees better than ale in phthisis.

The subject of change of residence has always claimed and received a large measure of attention from writers on consumption.

If benefit is to be derived from change of air, and wintering in a warmer climate, it is, I believe, in its most incipient, or only threatening stage, that the greatest amount of good will be effected. When the disease is advanced, and the patient is visibly declining, I cannot concur in the opinion of many of our metropolitan brethren especially, that, with all the inconveniences and disagreeables inseparable from a sojourn in a distant foreign land, added to the depressing influence of home separation, even if the pecuniary circumstances of the patient warrant his removal, the amount of questionable benefit to be derived is at all proportioned to the many discomforts which are certain to obtain. I believe, however, that frequent short trips from home, avoiding, at the same time, undue fatigue, will often prove of inestimable advantage.

As winter residences for the consumptive, we have in this country many spots where we may obtain all the advantages of Continental or Eastern sojourn without the painful and inseparable feeling of banishment, which attends a residence there. Among many other spots, the Cove of Cork, Torquay, Bournemouth, and Hastings, perhaps demand our first claim. From the month of June, to October, or even November, I believe that no part of England offers greater advantages to the subjects of threatened or early phthisis, than the shores of our own eastern coast. It is both drier, and more bracing than the watering places of the south and west; and I am glad to learn that this fact is beginning to be appreciated by the physicians of the metropolis, as well as by others who have hitherto regarded our eastern shores with the greatest possible dread.

While thus advocating the claims of our own country, I would on no account underrate the advantage to be derived from an occasional tour on the Continent, which, by amusing and occupying the mind, is capable of effecting simultaneously the most beneficial influence upon the phthisical tendency. With the same view, a sea-voyage, provided that it be not too extended, so as to produce *ennui*, is a valuable auxiliary to the hygienic management of phthisis in its early stage.

SOUTH-EASTERN BRANCH: WEST KENT
DISTRICT MEETING.

FATAL CASE OF VARICELLA.

By FREDERICK J. BROWN, M.D., Rochester.

[Read September 25th, 1863.]

WILLIAM D. H., aged 3½ years, was first seen by me on August 30th, 1862. He had been ill about five days with chicken-pox. The vesicles were desiccating; but there were two apertures in the skin of the back, as if portions had been punched out, resembling the perforating ulcer of the stomach. One aperture was equal in size to a groat; the other was rather smaller. There was induration and livid redness of the skin of the back, in a diffuse form, constituting erysipelas. The child was suffering from irritative fever. I ascertained that the urine was passed in bed, because the child dreaded to be lifted out. The course of the erysipelas was to affect the whole of the abdominal wall. Peritoneal effusion took place, with diarrhoea; and the child died on September 10th.

The death-certificate was as follows:—Varicella, 17 days; erysipelas, 12 days; peritonitis, 4 days.

The treatment consisted of the application of nitrate of silver dissolved in sweet spirits of nitre (gr. v to ʒi) to the erysipelatous skin, and of zinc ointment to the ulcerated apertures. Quinine was administered internally. Very little nourishment was taken by the child, although beef-tea and wine were ordered.

I have brought this case forward, because it is the only fatal case of varicella that I have ever seen. I once saw an ulcer in the abdominal wall equal in size to a halfpenny, in a quadroon child; but it was not a punched-out ulcer. That child recovered.

In the case under consideration, it is probable that the wetting of the skin by urine may have determined the fatal event.

I do not know whether perforating ulcers have been ever observed before, either as an occasional occurrence in the scabbing stage of varicella, or as an event in the course of low forms of erysipelas. It was not a case of ordinary sloughing. There was no appearance of gangrene.

The sanitary condition of the house was bad. The privy was close to the house, and waste water was permitted to run into the privy, so causing agitation and dilution of the night-soil, from which evaporation would be constantly going on. The child occupied the basement story, and was lying within a few yards of the privy. Another child was suffering from deep ulceration of the gum and cheek; and a week or two after the death of the child whose case has been narrated, there were two children ill with swelling of the glands below the ear, accompanied by pallid countenance and feverishness. These circumstances are evidence of defective sanitary condition, and show that the family was suffering from blood-poisoning.

ENGLISH IN INDIA. There is too much reason to fear that our race in India undergoes rapidly a fatal deterioration. On the testimony of Sir Ranald Martin a third generation of unmixed Europeans is nowhere to be found in Bengal, and Major-General Bagnold has remarked that the oldest English regiment, the Bombay "Toughs," notwithstanding that marriages with British women are encouraged, have never been able from the time of Charles II to this day to raise boys enough to supply their drummers and fifers. In fact, whatever difference our increasing care for sanitary safeguards may affect, there is a certain deterioration of our race always under present circumstances tending to its extinction in the Indian Peninsula.

Introductory Lectures.

ST. GEORGE'S HOSPITAL.

THE introductory address was delivered by Mr. HENRY LEE. Among the illustrations which the lecturer offered of the greatest interest was the coagulation of fibrine within the vessels of the living body, and its subsequent liquefaction and disintegration, so that it might again mix with the circulating blood and be carried to any part of the body. But inasmuch as the blood-vessels were constantly divided into tubes of smaller dimensions, if the process of liquefaction had not been completely carried out, the particles of altered fibrine at length met with tubes of so small a diameter that they were unable to pass. They thus became impacted in the vessels, and sometimes masses of a very considerable size were thus accumulated. In the process of liquefaction the fibrine might undergo a greater or less amount of decomposition, very much in the same way as it would if allowed to remain at a high temperature out of the body. This decomposed or decomposing fibrine he knew by experiment to act as a powerful poison when introduced into the circulation. Dr. Polli, of Milan, had recently published a very interesting series of experiments, by which he showed that the use of sulphurous acid in combination with potash or soda possessed in an eminent degree the power of arresting organic fermentations and putrefactive changes. He proved that the sulphite of soda, or of potash, or of lime, were perfectly harmless when taken into the living body; and the idea occurred to him that these same preparations, which exercise such a powerful influence in preventing decomposition out of the body, might also prevent similar actions in living animals. Dr. Polli had given the details of sixty-eight experiments, which appear to have been most carefully made. Several dogs had putrid blood injected into their veins; and, being subsequently left to themselves they all died, with one exception. An equal number of dogs had large and repeated doses of the sulphites administered, and subsequently had the same quantity of putrid blood injected. These all recovered. Dr. Polli also found that if he mixed the putrid blood with a certain proportion of sulphite of soda before he injected it the dogs did not die as when the putrid blood alone was used. Should Dr. Polli's experiments be confirmed by subsequent observation, there would be in these preparations containing sulphurous acid a means of counteracting in a great measure, not the affections which arose from decomposition of the fibrine of the blood only, but a very large class of diseases which had hitherto defied the utmost efforts of the physician. Dr. Polli mentioned among the zymotic diseases which he supposed to depend upon a fermenting principle in the blood, cholera, typhus, puerperal fever, glanders, black vomit, marsh fevers, etc.; and if his conclusions were confirmed these diseases would now be capable of prevention in a number of instances; in others, they would be no longer fatal. An army might be rendered safe from the devastation of typhus, and a military hospital from the scourge of infectious gangrene. Mr. Lee would, then, have his hearers study carefully any one case of blood-poisoning which might present itself, and consider the means which might be used either to prevent or to remedy such a disease, and they would know something of a large class of similar affections, and of their mode of treatment.

In endeavouring to impress upon the students the necessity of associating the different facts which came before them in the study of their profession, with the general principles, powers, or laws by which they are regulated, he would not be understood to mean that they

should be content with a general knowledge of any subject. On the contrary, he would have them, especially at the outset of their career, study each fact, at whatever cost of time and labour, with the greatest possible accuracy; inasmuch as the accuracy of the general principles which were to last them through life would depend upon the accuracy of the observations upon which those principles were founded. And in order that they might be sure that they had laid a sound foundation upon which to build their conclusions he would have them see, and touch, and hear for themselves, and never be satisfied with the description at second hand when they could use their own senses; and not only this, but he would have them obtain an insight of their subject. For centuries men had seen for themselves that when an arm was bound up by a tape the veins swelled; but the first man who obtained an insight into the meaning of that fact, the first who correctly perceived what he saw, was William Harvey. "If we content ourselves," said Harvey, "with the observations of others the spritely edge of our own art will languish, and we extinguish the lamp which they lighted to our hands. It is those who follow nature's conduct with their own eyes, sometimes through a perplexed yet faithful track, who attain the highest pitch of truth." "Let us blush," he observes, "in this so ample and wonderful field of nature (where performance still exceeds what is promised), to credit other men's traditions only. Nature herself must be our adviser—the path she chalks must be our walk; for so while we confer with our own eyes, and take our rise from meaner things to higher, we shall at length be received into her closest secrets. For nature being divine and perfect is always consonant to herself." Nor was the mode of learning he was then advocating of modern origin, however much it might have been neglected in past ages, and however little it might be esteemed by some in the present day. It had the highest sanction. The delicate pencillings on the leaves of a wild flower, the winter storehouse of the ant, or the wonderful provision in varied climes and under every diversity of temperature for the clothing and sustenance of all the different kinds, had been for centuries so many illustrations by example of principles higher in their order and more extensive in their application than anything it was in the peculiar business of Galen or of Harvey to teach.

It became, then, a question of the first importance in medical education to ascertain how this insight into nature's operations might be acquired; and very various modes had been recommended. Some had maintained, even in our own day, that the first principles of medicine, as of other branches of philosophy, must be developed in the mind by the pure light of reason, undisturbed by sensible impressions. It was maintained that man had the faculty by the pure reason within him, of obtaining the power of interpreting and of gaining an insight into nature's laws; and as a remarkable instance of this faculty it had been stated that Dalton was enabled at once, and without passing through the subordinate stages of painful inductive ascent, to announce in its most general terms the law of definite proportions in chemistry to which he had already alluded. But Mr. Lee knew that Dalton attributed his success chiefly, not to any particular innate genius, but to a sound mathematical education. Again, there had been others who had maintained that a thorough acquaintance with classical literature was the best preparation for the student's mind, and one need go no further than their own hospital for brilliant examples of those in whom the highest classical attainments had coexisted with the deepest insight into nature's laws. But if there were those who attributed their success in life to mathematical or classical culture, there were on the other hand men not less distinguished who had, without such advantages, gained as deep an insight into the numerous chemical,

mechanical, and vital forces which govern this lower world. Faraday's attention had not been distracted from the contemplation of nature by any of the usual processes of education; and the greatest medical discovery ever made was not among the busy haunts of men, but in a country village. Unaided and alone, Jenner observed the beneficial effects of vaccination as revealed to him by the silent and hitherto secret operation of nature's ordinary laws. If, then, men with such different opportunities, and under such different modes of education, obtained the same power of insight into what Harvey called the closest secrets of nature, must it not be concluded that it was with the mind as with the body—that real strength and energy did not depend so much upon the kind of food presented—or in the manner in which it was prepared, as in the power of digesting and assimilating it?

MIDDLESEX HOSPITAL.

THE introductory address was delivered by Mr. T. W. NUNN. He said that at no epoch in the history of medicine had the times been more pregnant with events affecting the interests of the medical profession than at present. It was not yet fifty years since legislative enactment gave some degree of unity to the great mass of the profession, and organisation had surprisingly permeated that mass. Organisation and corroboration were still going on, and were converting the profession into a compact whole, as crystallisation converted what was wanted in cohesion into the solid and adamant. The daily increasing development of the importance of medical science and the expansion of its sphere of application demanded from all connected with it ever fresh labours and greater energy. Progress was a consequence now more than ever essential to the vitality of medicine and to maintaining its present position amongst the sciences. There was no finality in science; the more that was known only taught how much there was yet to learn, more was seen spread out to one's gaze; objects which at a lower level stood out conspicuous against the horizon were now scarcely distinguishable specks in the mid-distance.

The lecturer then dwelt upon the nature of medical studies and the means of prosecuting them, and proceeded to consider what qualities of mind and body the students must bring with them to succeed in their purpose. They must bring not the delicately gloved hand, but the hard fist of determination and perseverance. They must never permit themselves to be disheartened. It was frequently to be observed that students beginning energetically fainted after the first few paces of the race, losing heart at their inability to retain what they read and heard. Let them be persuaded that this treacherousness of memory was but a transient disorder, and ought not to lead to chronic despondency. Let them remember that with Englishmen to fail implied success, and to say that an Englishman was down was but another way of expressing that he was about to rise. He advised them to secure a daily improvement, however small; and not to trust to violent and spasmodic efforts. The daily plodding, persevering effort was as the slow but irresistible lift of the screw compared with the sudden hoist of the lever—every inch gained was safe; there was no fear of a retrogression more rapid than the advance.

Mr. Nunn then reminded the students that, whether they worked with themselves or their fellows as competitors, the preservation of bodily health was as important as success; in fact, it was essential to it. Sufficient sleep, food, and exercise, more than they perhaps imagined, would contribute to their progress. He made no apology for referring to such matters; a judicious general looked as closely to the shoes of his men as to their weapons.

There was no real gain in devoting to reading hours that Nature had assigned to rest. Without a healthy state of the body the intellectual faculties could not fully come into play. It was difficult in London, perhaps, to obtain the proper amount of out-door exercise; but cold bathing and the simplest gymnastics would in a great measure compensate. Again, relaxation was necessary for fresh endeavour. Idleness, however, was not relaxation. Since many of them were destined to pursue the profession in distant countries, how much to their advantage would it be to have some general as well as professional knowledge?

The lecturer observed that, assembled with a common purpose, they could not consider themselves as a fortuitous concurrence of individuals, each entitled to pursue independently that course which might happen to be most agreeable to himself. It was contrary to the nature of things that individuals could be associated without mutually influencing each other. He reminded them they had to undergo not only a technical training, but a moral and intellectual development. Admitted as students, they incurred obligations to their neighbour; one of the most binding was aiding their fellow-students in the pursuit of knowledge. Mutual instruction, more than any other thing, tended to elevate the general character of a school.

After some further excellent advice to the students, as to their several duties, Mr. Nunn recommended those whose term of studentship was drawing to an end to devote the current session to clinical study. They must learn to infer; so as when all the facts of a case and all the symptoms are carefully considered together, to arrive at a correct diagnosis. They must likewise begin to compare one case with another, so as to gain a view of the various classes of disease.

Admitted as practitioners, they at once become sharers in a noble heritage bequeathed by their predecessors. But the estate inherited was not to be misused and squandered; its jewels were not to be scattered broadcast—its mansions were not to be despoiled. They must strive to cultivate its waste lands, increase its treasures, add yet stately towers to its time-honoured fabric. They must endeavour to discover that which shall permanently benefit suffering humanity, and the discovery they should give ungrudgingly. Millions of money gained by a secret remedy would confer no dignity on the possessor thereof. What would Jenner's fame now be had he kept his immortal discovery a secret for his own pecuniary gain? It was the sentiment with which a benefit was conferred that in a great measure determined its value; and we should ever bear in mind the glorious declaration of Hippocrates:—"My sole end shall be to relieve and cure my patients, to render myself worthy of their confidence, and not to expose myself even to the suspicion of having abused this influence. . . To whatever dwelling I may be called I shall cross its threshold with the sole view of succouring the sick, abstaining from all injurious views and corruption."

The profession had its enemies, against which it would be the duty of his hearers to keep watch. Mammon was one of its foes; quackery another. The mere greedy gatherer of fees by his mephitic influence did incalculable harm to the profession to which he claimed to belong, but in the dignity of which he could bear no part. Quackery had ever been on the alert to injure the true physician—not only that form of quackery that sought with unclean hands to filch from the ignorant and credulous by clumsy devices, but quackery within the ranks of the profession. The fortress was often in more danger from the traitor within its walls than from the avowed assailants. Mammon and quackery were bosom friends; they were like evil genii, prowling about seeking whom they might entangle in their toils. There was no single function of a medical practitioner that was otherwise than honourable. It might be truly said

of the profession that it "knows nothing base, dreads nothing known." Some had falsely concluded that, since men with ample fortunes did not enter the medical profession as they did the legal, military, and naval professions, the medical profession was less the occupation for a gentleman than the others just named. The real and true explanation was, that the miseries and sufferings of our fellow-creatures were not to be made a pastime of. Surely the profession had a pedigree sufficiently old to satisfy the most punctilious. It was one that can find employment for powers however great, and present problems difficult enough to make the most self-confident hesitate. Then, again, the science of medicine was gradually spreading out its roots, so as to assume an administrative importance. How steadily "state medicine" was advancing. The revelations lately made in sanitary matters especially connected with the public service would tend to put the physician in his proper place. The evidence of Sir Ranald Martin and others on the subject of the health of troops showed that the tenure of our Indian possessions will depend more on the skill of our physicians than on the strategy of our generals. Mr. Nunn was far from undervaluing those worldly advantages and distinctions that men so ardently pursue, offered by other callings in life; but he earnestly trusted that having once entered the medical profession, they might never harbour for a moment a thought of distrust of it. Some of those whom he addressed as students would assuredly attain to the highest honour accorded to their profession; but all, by a diligent and honest discharge of duty, might carry with them a consciousness of having alleviated human suffering, and of having lightened the ills of life, which to have "twere sweeter than to wear what kings bestow."

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

THE introductory address was delivered by Mr. BATTY. He said that he felt strongly the importance and responsibility of his position, from two sources—1. His advanced years in life; 2. The fact that this was in all human probability the last opportunity of giving expression to his views of the profession in which he had been engaged for upwards of half a century. He referred to the wonderful changes and hitherto unlimited development of mind in every department of art and science in connection with medicine and surgery during that period, and now extending over the civilised world by the various associations of scientific men. In matters political combination was strength. With the medical profession it meant something more; it meant "progress." This view Lord Stanley had well expressed, viz., "that the history of science is the history of improvement, whereby life is lengthened and disease rendered less severe, knowledge more ample, and man better fitted for those high destinies which we believe it is the purpose of Providence he should fulfil." When they took a retrospective view of surgical and medical practice from their present stand-point, they had great reason to be astonished as well as thankful for the improved treatment of diseased and broken limbs which in his early days would have been memorable by their loss. Again, in ovarian disease, he had been permitted to see such bold surgery as would formerly have been laughed to scorn, and executed with such skill and decision as to reflect the highest credit upon the operator, with the happy result of a perfect state of health. And all who regarded the progress of medicine with an intelligent eye must have witnessed with sincere gratification the prodigious advance that had been made in microscopical anatomy and physiological chemistry.

Mr. Batty insisted on the necessity of devoting the

early years of youth destined for medicine to the acquisition of general knowledge. The position of medical men required that their attainments ought to be of the highest character, for they had to exemplify it as second to none except those ordained to preach the gospel. It was of importance that a class of men so widely diffused and mingling so much with society as the members of the medical profession should be so instructed as to be able to give a tone to conversation, and to promote amongst those with whom they associate the love and pursuit of literary and scientific accomplishments. In commercial communities, it was true, the superior wealth, lavish expenditure, and even ostentatious display, with liberal hospitality and magnificent style of entertainment, gave to these a prominent position; yet the medical profession occupied no secondary place, for its members exacted and received the courtesy and attention everywhere extended to educated gentlemen and finished scholars. He also directed attention to the cultivation of those accomplishments which would relieve the severe studies of the profession. It was a vulgar prejudice, which still held with weak and uneducated persons, that to be eminent in the medical or any other profession, the less one had to do with other sciences than his own the better; but, like many a sorry weed, it had a deep root in uncultivated ground. Great physicians and surgeons of the past had been scholars and men of science, and of taste, possessing knowledge and accomplishments in no small degree out of the course of their profession. In all professions, provided he knew his own thoroughly, the more he knew out of his peculiar pursuit, the more enlightened was that man, and the better able to follow his own occupation with success and originality. He advised the students to make coloured drawings of the objects presented to them in hospital practice. He would by no means exclude a knowledge of music where there was a taste for it. So eminent a man as Sir William Herschell was known as the best drummer in the Hanoverian army, and also skilled in other instruments; and by gathering up the fragments of time he became the friend of monarchs and first of astronomers. Eminent members of the judicial bench had been noted for their musical attainments. Lord Palmerston's occupation was mathematics during travelling. Biography of eminent medical men who have conducted their profession with a deep sense of its sacred character was a study of great importance. And Mr. Batty specially recommended to the students' notice the lives of Mr. Hey, Dr. Abercrombie, Dr. John Reid, and Dr. G. Wilson. When such bright lights were removed from this dark world, did it not become those less brilliant to endeavour to shed their rays over a larger sphere, that the gloom might be somewhat lessened, and the bright light everywhere hastened? The imitation of the excellence of great and good men was itself a step towards greatness and goodness. He urged on them the moral obligation of missionary enterprises in union with the profession, as resulting from the relation of superiority in which we stand to less civilised men. The claims that these races had upon their more advanced brethren it was impossible to deny. He referred specially to the medical missions in China, and of Dr. Livingstone in Africa.

Another subject of great interest was also pressing forward upon the medical world; the earnest desire to investigate the economy of human existence, to ascertain the causes of human wretchedness, and to employ safe and active measures for its amelioration or absolute removal. Such a period every true philanthropist must hail with unmixed satisfaction. Men were discovering that this world had not been created that it might be the theatre only of guilt and misery. Man's physical organisation, his mental faculties, and the nature of the objects around him, were now the studies which were meant as blessings for all—the labourer, mechanic, and

peasant, as well as the lord or monarch. These were the subjects of social science which engaged the attention of the noble as well as the learned, and medical men were deeply interested from the amount of their intelligence and moral influence; and to obtain the position of a medical officer to a board of health required an amount of information and study little suspected except by those who had been engaged in it. The profession could not be exalted too highly; it was one which commanded the blessing of God when conducted in dependence on his guidance, for it had the promise of present and also of future reward.

Reviews and Notices.

A PRACTICAL TREATISE ON ECZEMA, including its Lichenous, Impetiginous, and Pruriginous Varieties. By T. McCALL ANDERSON, M.D.; Fellow of the Faculty of Physicians and Surgeons; Physician to the Dispensary for Skin-Diseases, etc. Pp. 134. London: 1863.

THE object of Dr. ANDERSON in writing this book has been to direct attention to certain views as to the nature of eczema, which, although shared in by Hebra of Vienna and several continental dermatologists, differ from those which have been generally received by the profession in this country.

The book is divided into thirteen chapters.

In the first chapter, the author, with Hebra, objects to the restricted meaning commonly given to the word eczema—the restriction arising from the idea that the elementary lesion in the disease is the formation of a vesicle. In contradistinction to this, Dr. Anderson says that careful clinical study of eczema leads to the following conclusions.

"1. The elementary lesion of eczema is not of necessity a vesicle.

"2. It may be an erythematous state of the skin, a vesicle, a pustule, a papule, or a fissure.

"3. Impetigo, lichen, and prurigo are merely varieties of eczema, in which the elementary lesions are respectively pustules and papules.

"4. Cases of eczema are often met with, in which an erythematous state of the skin, vesicles, pustules, papules, and fissures are met with in a combined form." (P. 3.)

The author then describes the symptoms which, in his experience, are almost always present in the height of an eczematous eruption; viz., infiltration of the skin; exudation on the skin; formation of crusts; and itching.

In the second chapter, Dr. Anderson describes at length the elementary lesions met with in cases of eczema; viz., an erythematous state of the skin; vesicles; pustules; papules; fissures; or a mixture of several or all of these lesions. The varieties of eczema here described include several skin-affections to which special names, and special places in dermatological classifications, have generally been given. Thus the pustular form of eczema is the *impetigo* of authors; papular eczema includes those forms which are generally described as separate diseases, under the names of *lichen* and *prurigo*—the difference between lichen and prurigo being merely produced by the excessive itching in the latter, and by the consequent scratching on the part of the patient. While, however, Dr. Anderson objects to the idea that impetigo, lichen, and prurigo are distinct diseases, he

would retain the words as synonyms of the various forms of eczema to which he has referred them.

Dr. Anderson gives the name of *eczema rimosum* to that form which is characterised by the formation of fissures—the *eczema fendillé* of the French. Fissures are, he observes, a frequent accompaniment of the other forms of eczema; but they also often constitute the principal elementary lesion, though they usually form, like the vesicles and pustules, on an erythematous ground. The most typical cases of *eczema rimosum* are met with in “chapped” hands.

The third chapter is commenced by a summary of the preceding remarks on the varieties of eczema; and Dr. Anderson here arranges them in the following order.

“1.] The principal elementary lesion an erythematous state of the skin (*eczema erythematodes*).

“2. The principal elementary lesion a vesicle (*eczema vesiculosum*), the typical eczema of Willan and Bateman.

“3. The principal elementary lesion a pustule (*eczema pustulosum* or *eczema impetiginodes*), the typical impetigo of Willan and Bateman.

“4. The principal elementary lesion a papule (*eczema papulosum*, including lichen or *eczema lichenoides*, and prurigo or *eczema pruriginosum*).

“5. The principal elementary lesion a fissure (*eczema rimosum*), the *eczema fendillé* of the French.

In speaking, in the course of this chapter, of the names which have been employed to express other forms of eczema, Dr. Anderson notices the *eczema marginatum*, a variety which has been described by Hebra, and also by Devergie, who, however, notices it under the head of herpes.

“It commences almost invariably on the inner aspect of the thigh, where it is in contact with the scrotum, and gradually extends circumferentially while it heals in the centre; so that, when fully formed, there is an elevated eczematous circle or segment of a circle, sometimes extending from the lower part of the abdomen to the knee, and inclosing skin which is either healthy looking or coloured by a deposit of pigment, the result of the previous inflammation of the part. It usually occurs on the inner aspects of both thighs simultaneously, in which case the eruptions on the two sides occasionally meet superiorly in the region of the pubes, and inferiorly in the perineum. It is met with almost exclusively among shoemakers and dragoons (Hebra), a circumstance which is easily accounted for by the continued moisture and friction which these occupations entail in the situations referred to.”

In the fourth chapter, Dr. Anderson treats of the Etiology of Eczema. The predisposition to the disease is strongest in persons of lymphatic temperament and in the scrofulous and debilitated, in whom it is called forth usually by some external or internal irritant. Sometimes, however, it appears in healthy persons, without apparent cause—being in this condition referrible to what the French call the “*dartreux diathesis*.” It is caused, especially in infants, by improper or insufficient food; excess of food is a predisposing, but rarely an exciting cause. Dr. Anderson believes that eczema is hereditary, as several cases have come under his notice which favour this idea. It is more frequent in infants and females than in males, from their greater excitability and sensibility of skin. Among the exciting causes of the disease, Dr. Anderson enumerates vaccination.

“There can be no doubt that the inflammatory action set up by vaccination is a frequent exciting cause of

eczema in those who are so predisposed; the eruption in these cases commencing sometimes in the site of the operation, sometimes on distant parts, as on the head.”

Other exciting causes of eczema are those arising from the nature of occupations, and to which males are especially exposed; such as exposure to acrid substances or great heat, as occurs in cooks, grocers, bakers, etc. (hence the terms “grocers’ itch,” etc.); the heat of the sun (producing “*eczema solare*”); the use of hot and mineral baths; various mechanical irritants; the application of stimulating liniments and ointments; and internal irritation, as from teething, disordered bowels, etc.

In the fifth chapter, Dr. Anderson points out the diagnosis of eczema from erythema, some varieties of herpes, scabies, psoriasis, pemphigus foliaceus, pityriasis rubra, the lichen ruber of Hebra, and some forms of syphilitic eruption.

In the sixth chapter, the Prognosis and Course of Eczema are described.

The seventh chapter is devoted to the Constitutional Treatment of the disease; and the eighth and ninth, to the Local Treatment.

In the remaining chapters, the author describes the symptoms, diagnosis, and treatment of eczema, as it affects various parts of the body; namely, the head, face, lips, edges of the eyelids, nostrils, external auditory passage, hands and feet, legs, genital organs, anus, nipple, and umbilicus.

We cordially recommend a perusal of this work to medical practitioners. While we have principally called attention to the views which the author holds as to the nomenclature and classification of eczematous diseases, we must not omit to mention that the practical parts of the book—those relating to diagnosis and treatment—are well worked out, and that the practitioner can scarcely fail to receive some valuable instruction from their perusal.

THE SURGICAL DISEASES OF CHILDREN. Being the Lettsomian Lectures delivered before the Medical Society of London, March 1863. By THOMAS BRYANT, F.R.C.S., Assistant-Surgeon to Guy’s Hospital. Pp. 145. London: 1863.

THIS book is a reprint of Mr. BRYANT’S Lettsomian Lectures, which appeared a few months ago in the pages of this JOURNAL. An analysis of the work is, therefore, unnecessary; and we will, therefore, merely direct the attention of our readers to the fact of the republication of these lectures, which afford an additional proof of the already well known industry and practical skill of the author.

THE JEWS. Of all races the Jews, the gipsies, and the Chinese appear to approach nearest to a cosmopolitan character. Statistics which have been published respecting the Jews in different countries seem to show that the Jew is subject to different physiological laws to those of the people by whom he is surrounded, as, for instance, the statistics of disease and death of the Jews and the other colonists in Algeria, which seem to show that the former are more completely acclimatised than the latter. The chief cause of the apparent superiority of the Jews in this sense, according to Mr. Hunt, is assumed to consist in the fact that they are a pure race. All pure races support the influence of change better than mixed races, as the examples of the Chinese, the gipsies, and even the nomadic Arabs indicate; nor are we ourselves, probably, on a par with either of these races, notwithstanding our tendencies and successes as a colonising people.

British Medical Journal.

SATURDAY, OCTOBER 17TH, 1863.

PSEUDO-CURES FOR THE SOCIAL EVIL.

LATELY, in speaking of prostitution and the diseases which spring from it, we referred to the large amount of misconception, or rather to the ignorance, which prevails amongst many of those who pretend to enlighten the world and the profession as to the proper mode of reducing the effects of the vice. We showed, in the first place, that there were strong indications, if not proofs, that governmental or police supervision of prostitution was a failure when practised in large cities and amongst a community at large. Certainly, proofs of the success of such supervision have yet to be given. It is probable enough, we readily admit, that in small garrison towns, and in the case of soldiers who are under regimental control and live in barracks, police interference of this kind may be of much and marked service; but it is manifestly absurd, in dealing with this question, to provide for isolated and exceptional cases. The government, if it supervise prostitution at all, must supervise it altogether; and we maintain, therefore, that as far as facts go, the attempt to arrest the spread of syphilis in a community by supervising prostitution, appears to be a failure. We maintain, for example, that syphilitic diseases are as common in Paris as they are in London. We know that these diseases rage in their worst forms in India, although, as we are told, a certain number of authorised and superintended women are allowed to each regiment.

In the second place, the immorality of the proceeding—the recognising of prostitution as a necessary evil by the government—is, in our opinion, patent. As we have already said, it paves the way for the commission of the sin by man, and makes the fatal step downwards for the woman ready and easy.

But it may be said, is it not possible to apply the system in a limited manner, so as to provide for and protect the health of our soldiers and sailors. A little consideration will show the impossibility of any partial legislation in such a matter, and the impossibility of in any way interfering with the liberty of the woman, unless under the authority of the laws of the country.

The truth is, indeed, that those who call out for some kind of effectual police interference present us with no practical scheme for the carrying out of their proposal. Does any Englishman in his senses believe that a House of Commons would ever be brought to pass a law that all women who practise the trade of prostitution shall be subjected to a

weekly or a semi-weekly examination? But this is positively what these *Saturday Reviewers* and their echoes cry out for, if they mean anything at all; this is what it must come to, if the remedy is to be applied in that way. And who is the prostitute in such case? And who is to form the diagnosis of what constitutes a prostitute? We suppose that this part of the business must be left to the police. The police must, in fact, have the power of declaring such and such a woman a prostitute under the statute, and therefore a woman proper to be subjected to the weekly examination of the policeman's examining doctor. The policeman is to have the power of carrying off a woman on suspicion of being guilty of syphilis, and of handing her over to the speculum of the doctor, just as is done in Vienna, where the law declares every woman who practises prostitution *de facto* liable to punishment.* We may, perhaps, be told that these examinations of the women are only to take place in the "licensed houses", and only in the case of women who have entered themselves properly and legally on the rolls of prostitution—who have, in fact, become prostitutes according to law. No other females would be subjected to the supervision. But, as we showed before, it is just here that the whole benefit of the system falls to the ground. Here it was that came in Parent Duchâtelet's lament. "We have", he said, "only four thousand women under our control in Paris, whilst there are forty thousand in the city spreading disease and debauchery." And his remedy was to increase the tolerated houses in all directions! Is any one silly enough to believe that soldiers and sailors and others would ever be brought to confine their attentions solely to these tolerated houses? The police, of course, might publicly announce that their licensed women all carried clean bills of health; but what attention is a drunken tar likely to pay to such a recommendation as that? And what sort of an announcement is this for the legislature of England to make?

Clearly, these writers have never considered the subject about which they have taken on themselves to instruct the public. Perhaps, again, they may tell us, "Oh! we will seize on every prostitute, whether registered or non-registered, and bring her under police supervision." Now, let our readers only imagine what we should come to, if the policemen of England were to take upon themselves to make the diagnosis of what constitutes prostitution in a woman! Fancy a policeman having the power to seize upon a suspected woman, and bringing her up before the magistrate to obtain an order for a speculum-examination of her by the medical officer of police! But this is really and truly what is de-

* It is worthy of note, that at this very moment the medical press in Vienna is calling out for some more stringent laws to stop the spread of syphilis, which appears to be raging in that city at the present time.

manded, when an effectual supervision of this kind is demanded.

Then, again, it is said, every woman guilty of syphilitic disease must be held in durance until she is cured. But why not also every man? Do men never spread the disease?

Let our readers only reflect for a moment on the difficulties which the interpretation of such a law would instantly create. What is a contagious syphilitic disease? What is a syphilitic disease? Now, we suspect that a surgeon, on examining the suspected woman, would have considerable difficulty, in a great many instances, in swearing that the breach of surface or the lesion which he found was syphilitic. He, of course, might have his belief and his opinion that it was so; but so long as the possibility remained that the lesion was a simple wound, it is evident that he could not subject the woman to the proposed detention. The truth is, that the police supervision of prostitution is surrounded with difficulties which, in this free country, are utterly insurmountable. The more the subject is examined, the more evident does its utter impracticability and inapplicability become.

And who are the authorities by whom we are called upon to introduce these novelties? We will give our readers an idea of the knowledge possessed by these gentlemen, who write so glibly in the *Saturday Review*. We insert an extract from the number of that journal for September 19th, 1863.

"At present, not only does this country enjoy a melancholy preeminence in the statistics of the disease itself, but, as a consequence of our sentimental views on the subject, the medical men of England are perhaps less qualified, as a rule, to treat it than any other particular form of malady. Nor is the Lock Hospital itself free from special difficulties which attend its poverty. It hardly dares to appeal to public support; and it may almost be described as an institution which says as little as possible about its own object, but which is attached to a fashionable Proprietary Chapel, rather than what it ought to be—a public institution, supported by public money, and conducted with the publicity, and therefore the efficiency, of similar institutions in Paris and almost every other European capital."

Through want of a proper licensing system, English surgeons do not know how to treat syphilis! And the Lock Hospital (whose advertisement may be seen every day in the *Times*) dares not appeal to the public for support!

Again, we are told that we have a perfect right, for the protection of society, to shut up women affected with syphilis, just as we have a right to subject to quarantine the subjects of pernicious contagious diseases; but the fallacy of the reasoning is apparent to any one who thoroughly knows the subject. True, we have a right, for example, to declare that a scarlatina or small-pox patient shall not use a public conveyance, except under penalty; and for an obvious reason. Such patients are, by the use of that conveyance, spreading disease through society

after a method against which its members have no protection whatever. Society has clearly a right to protect itself against such a deadly source of disease—to which it is in this way *unconsciously* subjected by those who are *knowingly* spreading the disease. But these flippant young first-class gentlemen from Oxford, who ply their classic pens in the *Saturday Review*, see no difference between such a case as this and the case of the prostitute who is affected with syphilis! The distinction, nevertheless, is manifest and complete. No member of society is *unconsciously* subjected by her to the possibility of contracting disease. Every member of society, in fact, who contracts disease from her, knew beforehand that he subjected himself to the liability of contracting disease. The man knew the risk he was running, just as much as he knows the risk he is running who thrusts his finger into a fire. There is, consequently, no kind of comparison between the two cases, such as the *Saturday Review* has tried to lay down. It is not, indeed, society that calls out for protection in such cases, but only that portion of society which practises fornication, and knowingly runs the risks of the practice. But if we are to be told that the disease is handed down from generation to generation, that the sins of the fathers are visited on their children, and that, therefore, our duty is to protect the unborn generation, we open the field of argument to a world of other considerations of a like kind. Why not call upon the government equally to interfere and put down the spread of scrofula, gout, phthisis, and other constitutional maladies which sap the health-strength of the country? Why (according to this argument of preventing the spread of syphilis from generation to generation) have you not an equal right to seize upon the rickety, scrofulous female, and forbid her to marry, as you have to seize upon the prostitute and arrest her for spreading syphilis?

One other difficulty we will throw out for the consideration of those gentlemen who admire governmental regulation of prostitution. The most important performer in the working staff of a prostitution superintendence is, evidently, the medical man. On his skill and surgical knowledge must depend the whole success of the affair—regarding it, at least, from the syphilis-arresting point of view. But, we ask, would any respectable and competent member of the profession be found to undertake the office—to accept the appointment of surgeon to a house of prostitution—even though it were duly registered according to Act of Parliament? Could a respectable medical member of society in this country be found, with sufficient courage twice a week, say, to attend at the well known prostitution-house for the purposes supposed—viz., of giving certificates to prostitutes, that they may ply their trade with safety to society? We very much doubt it. We believe

that the education of gentlemen in this county has yet hardly reached that degree of philosophic superiority which would lead them to sacrifice their own feelings and the feelings of their family to the performance of such a profound act of humanitarianism. What would be the natural sentiments of the wife or daughter of the medical philosopher concerning his bi-weekly visits to a first-class registered establishment of this character? What respectable medical man would like to have his certificate of clean health and fitness handed about by prostitutes to their customers? It is of no use our being told that these things work very well on the continent. The answer is plain. Englishmen are not Frenchmen, and all Frenchmen are not Parent-Duchâtelets. But—to test the matter practically—if one respectable medical gentleman and philosopher in this country will tell us that he is ready to accept such an appointment from his deep sense of its utility to society at large—is ready to sacrifice his feelings to his love of his fellow-creatures—we will admit that our argument is defective. In the meantime, we call upon those who are shouting out so loudly for the introduction of these continental blessings amongst us, to answer the case as now laid before them.

TITLE OF ASSISTANT-PHYSICIAN AND ASSISTANT-SURGEON.

It is high time that the use of titles assistant-physician and assistant-surgeon at hospitals were abolished. The title "assistant" is inappropriate, untrue, useless, degrading, and injurious to the interests of our hospitals. The term no longer bears its original signification. The office of assistant to the medical officers of hospitals was, we believe, first created at the request of some of our metropolitan surgeons—at St. George's and at Guy's Hospitals. These gentlemen, after many years of duty, finding the work of the hospital in some particulars severe to them, applied to the governors for relief, which was granted on account of their long term of services. They were allowed to select an assistant to help them. Now this assistant was really and truly what the name implies. He did that portion of the work of the surgeon which the surgeon delegated to him. But, as time went on, this idea of assistant officers was developed into a formation of a set of extra physicians and surgeons, for whom special work was assigned and created in the out-door department of hospitals. Their main business was no longer that of assistant to the physician or to the surgeon, but was an entirely new branch of hospital medical service. They were no longer chosen by the surgeon or physician, but were solemnly elected by the governors, and had their special duties assigned to them. They became, in

fact, physicians and surgeons of the out-door department of hospitals.

The title, however, stuck to the holders of these offices, though now manifestly most inappropriate; and, as year after year has gone by, it has, for many obvious reasons, become more unfitting, unjust, and inappropriate; and we imagine that it would be a very difficult task for any one to give a single sufficient reason why the title should still be maintained.

That the title is unfitting, is manifest from the fact that the main duty of the assistant-officer is to attend to the patients in the out-door department of our hospitals. In that department, he is as much master of the field as the physician and the surgeon are in the wards of the hospital. No one can interfere with him. He is in no sense assistant to any one in the main business which he performs in the hospital.

The title is degrading, and therefore so far is injurious to the interests of the hospital, as well as to the interests of the bearer of it himself. The patients in the out-door department very naturally feel that their "doctor" is an inferior sort of article, as he is merely an assistant; and consequently they have not that full amount of confidence in him which they ought to have, and which it is to the especial interest of the hospital that they should have. Can anything be more absurd than for a hospital to give a title to its medical officers which tends in any way to degrade them in the eyes of their patients? Is it not manifestly their duty to create in the minds of the patients the fullest confidence in the skill and capacity of the gentlemen into whose hands they confide them?

Again, it is certain that, with a large number of the public, the house-surgeon of our hospitals is a far superior personage to our assistant-physicians and assistant-surgeons. Again and again we have had practical proofs of this given us. The patient "doesn't want to see an assistant; he wants to see the house-surgeon."

It should also be remembered that the present class of men who are assistant medical officers are a very different class, in years and in medical standing, from the young gentlemen who were originally made assistants.

We cannot, indeed, imagine of what earthly benefit or use the retention of the title is to any living soul. We have seen that it is degrading and most unfitting to the physician or surgeon himself, and that it is in so far injurious to the interests of the hospital. A gentleman, it appears, is worthy to be physician to a dispensary; but the moment he is elected to a hospital, though he there performs precisely similar duties, he must come down to the title of assistant-physician. Is it reasonable, is it not rather something approaching to scandalous, that men with the

reputation of a Paget, a Prescott Hewett, and a Skey, should have been made in the prime of their lives, and up to a late period, to bear the title of assistant-surgeons?

Thus, then, it appears that the title is anomalous, the object for which it was originally applied no longer existing; that it is degrading and injurious to the interests of those who have to suffer it; that it is prejudicial to the interests of the hospital; and that no earthly reason can be given for keeping it up. There is, indeed, one only possible suggestion which can be offered in favour of it; and that is, that keeping up the distinction in some way or other serves the interests of the physicians and surgeons of the in-patients, by laying down a marked line of distinction between their quality and the quality of the physicians and surgeons of the out-patients. But we are sure that the physicians and surgeons of our hospitals of the present day would be the very last persons to adhere to any such artificial mode of sustaining their rank. They have sense and liberality enough to know that men now-a-days form their reputation without resorting to any such distinction as this. The junior officers of hospitals complain of it, and justly, because it places them in the eyes of the public, and to a certain extent in the eyes of the profession, in a position beneath that which they do actually hold in the profession. It artificially debases them. And the truth is, indeed, that some of our metropolitan hospitals have already seen and practically acknowledged the truth of these remarks by giving to their junior officers the full title of physicians and surgeons.

So reasonable, indeed, is the claim, and so just, that we are satisfied, if those most interested in the matter will only express their wishes and fully state their case to the governors of the different hospitals throughout the country, they will be sure to obtain relief. Equally satisfied are we that in their attempt they will receive the cooperation of their senior colleagues. They have only to ask and to have; the case is too clear to admit of denial. All parties concerned in the matter would be considerable gainers by the change, and no one could by any possibility be injured by it.

ARMY MEDICAL GRIEVANCES EXPLAINED AWAY.

A DEPUTY Medical Inspector-General of the army, who speaks apparently with authority, although without a name, tells us that his branch of the service has been grossly maligned. The army medical service is an excellent service; it opens up for a young man a career such as he will find nowhere else; viz., £200 a-year to begin with, with certainty of promotion to the rank of surgeon-major, if he

sticks to the service long enough, with chance of earlier promotion for distinguished merit; half-pay if disabled by ill-health; and optional retirement, twenty-one years of service completed, on at least £300 a-year.

Such is the bill of fare laid down by the Deputy-Inspector. And, certainly, he does not make out a bad case for his inspected ones, as far as he goes. If we remember aright, however, the main grumbling in the army has been, not in reference to pay, but in reference to rank. We have always understood that the assistant-surgeon received snubs in the matter of rank; and was refused those things which, by a royal warrant, were once granted him. The Deputy Inspector thus answers these objections. He says, that a medical officer, being a non-combatant, is very properly not allowed to exercise command in any situation, to sit as president at any court of inquiry or board of survey, or to command at mess; and for the following reason: viz., that if the medical officer were allowed thus to act, so must every other member of the civil departments, and then the army would be disorganised. Besides, the doctor has enough to do in learning his own profession without educating himself as a military officer.

The complaint about forage, again, is all nonsense. The colonel's horses are liable to be killed in action, whilst the doctor's are not, and, therefore, he has a right to more horses and more forage than the doctor.

The complaint about leave of absence is said to be all moonshine. "Every medical officer appears to be able to get at least two months' leave a year, and if he be sick, a very much longer period." What the Deputy Inspector means by "*appears to be able*", we do not quite understand.

As for making doctors pay the expenses of rejected recruits, that is only fair; "the public must be protected." But the fine is only "enforced in palpable cases."

Favouritism has been spoken of; but any show of the kind is capable of ready explanation—the case of Dr. Becker, for example.

But one grievance the army medical officer may fairly complain of:

"The army medical officer may justly think the period he has to serve on full pay, before being allowed to retire, too long. This is a real grievance, and is the chief cause of the length of time the assistant-surgeon has to serve before he gets promotion. The wear and tear of the constitution of the medical officer, the anxieties he has to undergo in the hospitals of the tropics, and the exposure to climate day and night, in comparison with the military and other officers of the army, entitle him to more consideration on this score; whereas he is worse off than the military officer, who can retire in twenty-five years, but who can enter the army at eighteen, which the medical officer cannot do. Moreover, arduous service for so long a time prevents his looking forward to anything but crippled health after a period of twenty-five years on full pay; and, therefore, it would be but an act of justice to shorten this period, and to give the rate

now given for twenty-five years to those who have served twenty-one years."

One other grievance we would venture to add, and that is, the superintending of branding, upon which point we should also like to hear the Deputy Inspector's opinion.

We suspect that our brethren in the army will see the case somewhat differently from this gentleman; and we have no doubt that they will fully answer his explanations.

THE WEEK.

At the Social Science meeting in Edinburgh, Dr. Christison, on Tuesday last, delivered a most admirable address in the Public Health Department. It was full of matter worthy of serious reflection, and pregnant with useful practical conclusions. We shall give a full summary of this discourse. Dr. Christison is the first medical man who has occupied the presidential chair of the Public Health Department; and it is saying nothing to the prejudice of his predecessors, to say that the chair has never been occupied so well. Who so well as a physician should know the state and the requirements of public health; and who of physicians should know these things better than Dr. Christison? Dr. Christison, in his address, called attention to the very defective state of our Registrar-General's nomenclature of death-returns; instancing the fact by reference to the vague terms of asthma, dropsy, atrophy, death from old age, of which latter cause he said that he himself had never seen an example. He, therefore, asked the Association to call upon the Registrar to reform the evil. He then treated at length of the causes of fevers, showing how much we had yet to learn of their causes. *Ague*, for example, had vanished from Scotland; and people generally attributed the fact to modern draining; but Dr. Christison, by reference to some curious statistics, showed that, in all probability, other causes must have been at work removing the disease; as these statistics clearly showed that, in one district at all events, ague had disappeared long before the modern system of drainage came into operation. Now, if (he argued) these other supposed causes be really effective, and we can ascertain their nature, we may do something to destroy ague in our colonies independently of draining. As regards *relapsing fever*, Dr. Christison never met with it except in an epidemic form; and then only when wages were low and the people in distress. The true remedy for this disease, therefore, is not the modern panacea, "draining", but proper food and ventilation. Of *typhus fever* he had known five epidemics during the last forty-five years. He attributed the fever, when not epidemic, to deficient food and bad ventilation, not

to bad drainage; the sources of foul air not being the sources of typhus. The decrease in the number of cases of typhus in Edinburgh began before the "fever-nests" there were improved; nor, in fact, has any real cleansing of them taken place. The cause of the decrease is to be sought in a probable change of the type of the epidemic constitution. At all events, typhus cannot prevail where work is plenty and ventilation good. *Enteric fever* has increased of late years, but only very lately so in Scotland. Dr. Christison cannot ascribe its origin to foul air. London is better drained, and yet the disease exists. Edinburgh's drainage is improved, and yet the fever increases there. Its cause is unknown. Foul air may favour its rise, of course. Neither are there any good grounds for ascribing *diphtheria* to foul air. As regards *phthisis*, Dr. Christison mentioned a remarkable fact. Dr. Macrae, of Lewis (one of the Western Isles), had never seen a case of pulmonary consumption in any islander. There is, indeed, a tradition that the islanders there never die from consumption. Those who die from phthisis there are persons who have gone into the cities and towns as servants, etc., and who return home to die. We mention these few facts to point out the extremely instructive character of this address.

In his opening address last week, as President of the Social Science Association, Lord Brougham made the following remarks on the introduction into this country of nurses trained on the same principle as the French *Sœurs de la Charité*:—

"It was more than once urged at our last congress that the invaluable attendance in French hospitals of *Sœurs de Charité* made their establishment in this country not only expedient but a kind of duty. There is great satisfaction in finding that steps have been taken with much success towards the attainment of this object. The most important by far is the foundation, by the sister of our colleague, Lord Granville, Lady G. Fullerton (so well known for her excellent writings), of a sisterhood under a Paris superior, in a spacious building, for which her coadjutor, Miss Easton, has nobly contributed £5000. These ladies being Roman Catholics, their sisterhood is of the same persuasion, and this somewhat interferes with their attendance in hospitals. But Miss Brownlow Byron has established another body of the same kind—the All Saints' Home in Margaret Street—and there are no other attendants than these sisters at the University College Hospital. This is a great benefit gained; and undoubtedly the exertions of this association, and of those ladies especially who are in cooperation with us, have mainly effected it. It is plain that the duties of nurses offer a great and constant means of female employment, as our amiable and able colleague Miss Hope, and her coadjutors in this town, have shown, confirmed by the excellent training schools for nurses under Mrs. Balfour. The *Sœurs de Charité* also perform the service of nursing the sick at their dwellings. I remember that, when attending M. de Tocqueville's funeral at Cannes, the feeling most generally expressed by all present was thankfulness for the comfort which attended the last weeks of his life from the care of those excellent persons. Surely those who have introduced this sisterhood into our country are worthy

of all acceptance. They well deserve to be the country-women of Florence Nightingale—and no higher panegyric can be pronounced."

THE *Journal of Psychological Medicine*, which was established in 1848 by Dr. Forbes Winslow, and has since then appeared under his able editorship, is to be discontinued—at least, in its present form. In an amiable and kindly spirit, Dr. Winslow lays down the editorial *bâton*, which he has so long wielded to the satisfaction of his numerous readers.

OUR obituary of this day contains a notice of the death of an old member of the Association, Mr. Henry Swift of Liverpool. The decease of this gentleman is attributed to typhoid fever, contracted in the discharge of his duties as one of the medical officers to the parish of Liverpool—an appointment which he had held during the last eighteen years. He was also, since the beginning of the present year, surgeon to the northern division of the Liverpool police.

L'Imparziali relates that a woman at Florence lately produced four children at a birth. The placenta was single, and had attached to it four cords.

M. Reybard's conclusions, in the late discussion on urethrotomy, in the Surgical Society of Paris, are: 1. When the stricture interferes with micturition, is superficial, and of small extent, it may be simply incised. In this way, we obtain a temporary result, which may be also obtained by dilatation; but which is obtained more rapidly by incision, and without accidents. 2. In other cases, where a radical cure is desired, we incise superficially, and dilate largely, once only; this proceeding is expeditious, and gives definite results. M. Reybard obtained, in fourteen cases, fourteen cures without accidents. 3. Deep strictures must be incised largely; and the operation is serious, on account of the deep nature of the incision required. In this deep urethrotomy, M. Reybard has often observed accidents, but has only lost one patient in seventy.

A PUTRID WELL. At a meeting of the Truro Town Commissioners, an extraordinary fact was brought to light. The surveyor admitted that there was a public pump in Rosewin Lane, which had been used by the poor people in that populous neighbourhood for the last two years, and was found to emit such a stench that workmen now employed could not stand over its mouth. The well was found to contain a large quantity of decomposed wood, from the decayed pump-tree and other sources, and a common sewer opened into it. The poor people of Truro have to trust altogether to these public pumps for their supply of water for culinary purposes; and as they are "few and far between," the effect upon the health of the neighbourhood by the use of water in such a filthy condition is incalculable. It appeared that complaints had been made respecting the pump two years ago, and the grievance had only recently been remedied.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
SOUTH MIDLAND. [Autumnal.]	Infirmary, Northampton.	Thurs., Oct. 22, 1 P.M.
BATH AND BRISTOL. [Ordinary.]	York House, Bath.	Thursday, Oct. 22, 7.15 P.M.
SHROPSHIRE SCIENTIFIC. [Ordinary.]	George Hotel, Shrewsbury.	Tuesday, Oct. 27, 5 P.M.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE next meeting will be held at the Town Hall, at Maidstone, on Friday, October 30th, at 2 P.M.

Dinner will be provided at the Mitre Inn at 5 o'clock. Tickets, 5s., exclusive of wine.

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, October 13th, 1863.

SHROPSHIRE SCIENTIFIC BRANCH.

THE next meeting will be held at the George Hotel, Shrewsbury, on Tuesday, October 27, at 2.30 P.M. Dinner will be ordered at 5 P.M.

SAMUEL WOOD, *Hon. Secretary.*

Shrewsbury, October 14, 1863.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

A GENERAL meeting of this Branch was held in the Medical Department of the Birmingham Library, on Thursday, October 8th; ALFRED BAKER, Esq., President, in the chair. There were also present twenty-two members and visitors.

Paper. A paper was read on

A Successful Case of Ovariectomy; Remarks on the Selection of Cases, and on Certain Details in the Operation. By F. Jordan, Esq.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

OCTOBER 1st, 1863.

A. B. STEELE, Esq., Vice-President, in the Chair.

Testimonials from Medical Men. Mr. LOWNDES drew attention to a letter that appeared recently in the *Medical Times and Gazette*, with reference to the printed testimonials affixed to "Martin's Infant Preservative".

Dr. STOKES explained that, until he saw the letter referred to, he was not aware that his name had been so made use of. Mr. Martin had come to him for a certificate of the harmlessness of this medicine, to satisfy the coroner in a particular case. He thought the mixture contained carbonate of magnesia, chloric ether, and syrup. Mr. Steele, however, who had also seen the prescription, thought it contained a very small quantity of laudanum. When he saw what use had been made of this certificate, he wrote to Mr. Martin, and received an answer which he read, and which stated that the use of the certificate as an advertisement was quite without Dr. Stookes's knowledge.

The CHAIRMAN said the dose of laudanum was very minute. Mr. Martin had called on him also for a cer-

tificate, and had said positively he only wanted it for the satisfaction of the coroner.

Mr. TOWNSON spoke very strongly of the impropriety of any physician lending his sanction or support to any such nostrum.

Dr. STOKES said he had directed Mr. Martin to remove his name from the wrapper alluded to.

OPENING ADDRESS. BY THE CHAIRMAN.

Mr. STEELE said that, though the Society could not congratulate themselves on being a numerous assembly, yet they were consoled by the reflection that to their little band was due the credit of evincing, by their presence, a sincere desire to promote the efficiency of the Institution, and thus to discharge an important duty to the profession. It seemed to him that no member of this Institution, who habitually absented himself from the meetings, except, of course, he were prevented by unavoidable causes, could be held excused from a serious dereliction of duty; and he would further affirm, that no practitioner of the town, however successful his career, or however brilliant his acquirements might be, could be said thoroughly to appreciate and faithfully to discharge all that he owed to himself and to his profession, so long as he stood aloof from this Institution, and deprived it of that aid and support which his influence and means might be expected to afford.

After alluding to the building in which they were met, a building such as the medical profession in no other town in the kingdom had the privilege to possess, and to the valuable library here preserved, he spoke of the advantage of the meetings held twice a month, to hear cases and papers read and discussed, and for the exhibition of pathological specimens; and he thought it impossible to conceive that the result of a number of men of education and refinement coming together month after month, to deliver themselves of thoughts and opinions, to discuss and criticise each other's views, sometimes, indeed, to engage in a keen intellectual combat, could be otherwise than conducive to the progress of our art, as well as most useful and instructive to the individuals taking part in it. He was persuaded that much good was effected by the members of the profession coming into contact with, and thus becoming better known to, each other; and he regretted that attempts to combine with the meetings a more thorough development of the social element had not hitherto succeeded.

On those comparatively rare but important occasions when an united expression of opinion on professional subjects seemed to be called for, this Institution afforded facilities for attaining that object with energy and promptitude; and that these advantages had not been neglected, the annals of the Institution sufficiently testified. Looking back for a few years, many could recall a memorable occasion when an esteemed and highly deserving member of our profession was the subject of a base and cruel attempt to blast his reputation; and when, at a meeting held in this building, the verdict of the profession overwhelmed his assailants with defeat and dismay, and at once restored him to the position from which he had for a time been wrongfully excluded. On a later occasion, when a certain form of quackery, especially mischievous and contemptible from the fact that its main supporters are renegade members of our own profession, ventured to thrust itself into closer contiguity than was deemed reputable or tolerable, this Institution came boldly forward to maintain its position and dignity, and that with no uncertain voice.

On a still more recent occasion, the practitioners of Liverpool, as represented by this Institution, published, without respect of persons, their solemn protest against the prevailing iniquity of medical men prostituting their talents and their influence in behalf of those who, for their own base and sordid ends, essayed the ruin of the very men to whom they were indebted for the greatest

kindness and consideration. He alluded, of course, to the subject of medical prosecutions; and thought they had in this matter lately seen the good effects of the firm and dignified position assumed by the profession on this most important point of medical ethics. At the recent trial at the Liverpool Assizes, although it was rumoured that some medical men were so regardless of their own self-esteem, and of their duty, as to lend themselves to aid the prosecution, yet they were, on that occasion at least, spared the humiliating spectacle of medical advocates coming publicly forward to swear away the reputation of a professional colleague. He thought he might venture, in the name of the Institution, thus to express his cordial sympathy with those gentlemen who, as defendants, had been subjected to so harassing and annoying an ordeal.

After speaking further of these trials, and of the difficulty or hopelessness of trying to enforce that by Medico-Ethical Societies, which our feeling of duty to each other and our professional honour fail to bring about, the chairman passed on to a brief consideration of the recent Medical Act, and observed that this great desideratum that was to have exterminated quackery, and to have elevated true medicine to a position never before attained, had led to results which were, considering the time and trouble it had taken, most disproportionately, nay microscopically, minute. He compared the profession to the frogs in the fable who prayed to Jupiter for a king; first they got a stork who gobbled up their guineas; and next they were vouchsafed a log which proved an incumbrance without any compensating utility. Our reformers, like most reformers, went to work on the levelling principle; but, unfortunately, in our case, the levelling has taken place from above downwards, instead of from below upwards. The once honourable and respected section of our profession, the pure physician, was now lost in the *mêlée* of L.R.C.P.s, graduates who had never graduated, but had straddled up all the steps at once.

With regard to the suppression of quackery, nothing could be a more consummate failure than Section 40, which was just sufficiently obscure to lead us into useless and expensive litigation. By prosecuting these people ineffectually, we only increased their number and augmented their arrogance and rapacity. The duty of suppressing this nuisance belonged to the general public, who were the sufferers, rather than to the medical body; and we, perhaps, actually did good to these quacks when we led the public to believe that we were acting from fear for our own interest, rather than from our wish to eradicate a public evil.

In conclusion, the chairman said that the progress and position of the Institution sufficiently testify that there was no just cause for apprehension as to its continued prosperity. The meetings, though not numerously attended, were kept up with increasing spirit and interest; and the building itself was maintained in a state of thorough efficiency; and that in spite of difficulties that would not exist if the whole profession of the town did their part.

On the motion of Mr. HAKES, seconded by Dr. WATERS, a vote of thanks was accorded to the chairman for his address.

PATHOLOGICAL DEPARTMENT.

Amputation at the Ankle-joint. Mr. BICKERTON showed a foot that he had just removed at the ankle-joint. It had been crushed in a railway accident, and he had been in hopes to save a part of the foot; but the deeper parts were so much more severely injured than the state of the integuments led him to expect, that he was obliged to give up the partial operation.

Long Retention of Acidity by Urine. Dr. BALMAN showed a specimen of urine from a patient who was suffering from a rather rare skin disease—absorption of the

pigment of the skin of the face. His skin, formerly dark, was becoming light and mottled; the hair of his head was black, but his beard was turning white. The peculiarity of the urine was, that though passed ten days ago, it was still highly acid; its specific gravity was 1025.

ROYAL MANCHESTER INSTITUTION: MEDICAL SECTION.

WEDNESDAY, OCTOBER 7, 1863.

E. LUND, Esq., in the Chair.

ONE new member was elected, and seven proposed; and a large addition to the library was announced.

Conjunctivitis, etc., from Lightning. Dr. SAMELSON exhibited a boy who, during a thunderstorm, was suddenly affected with symptoms of acute conjunctivitis—pain, redness, photophobia, etc. These symptoms lasted for a day or two, in conjunction with some pain in the bowels, and a parched and discoloured state of the mucous membrane at the orifice of the nostrils and mouth. Five days afterwards, a mere trace remained. The patient was the only one affected out of some thirty children present with him at school.

Dilated Aorta. Mr. MIDWOOD exhibited a specimen of dilatation of the abdominal aorta from a patient who had died of dysentery.

Total Absence of the Iris in both Eyes. Dr. SAMELSON exhibited the case of an adult man who has total absence of the iris in both eyes. There seemed to be little doubt that this state was congenital, as the patient had always suffered from weak eyes, although his sight had been by no means bad. There were several other points of interest in the case, regarding the condition of the lens, etc.; and as Dr. Samelson considers it to be one of remarkable interest and rarity, he proposes to publish a separate and exhaustive account. A conversation on the subject was adjourned till the next meeting.

Absorption of the Iris. In connection with the preceding case, Mr. HUNT exhibited some drawings illustrative of the manner in which he believes that gradual absorption of the iris may occur.

Blepharoplasty Operation. Mr. THOMAS WINDSOR showed a boy in whom he had succeeded, with considerable difficulty, in replacing the upper eyelid. There was still great deformity of the lower, upon which he intended to operate, and afterwards to communicate the case again to the society.

The Glucogenic Theory: its present state. Dr. WM. ROBERTS gave an elaborate statement of the present state of the glucogenic theory, attempting to define, as far as possible, how much had been ascertained with certainty, how much was still *sub judice*, and what were the probable future developments of the theory. He gave a full and lucid account of the original observations of Bernard, Pavy, Harley, McConnell, etc., with regard to the presence and probable mode of production of the amyloid substance and its conversion into sugar. He referred also to some experiments of his own, which seemed, as far as they went, to confirm Pavy's views of the *post mortem* character of the ordinary saccharine changes in the liver. He also detailed the observations of Schiff, Pavy, etc., on the influence of various portions of the nervous system on the urinary secretion; considering that the sole positive deduction, as yet, from these is, that nervous influence must undoubtedly constitute one important link in the chain of causation in diabetes.

Correspondence.

IRIDECTOMY.

SIR,—I cannot allow to pass unnoticed the letter in your impression of October 10th, on "Iridectomy"; which, be it understood, means cutting off a piece of the iris, just as the operation is done for the making of an artificial pupil. That letter was published as an answer to some remarks of yours, rather depreciating* the operation as a cure for glaucoma.

Nothing, in my opinion, can be gathered from it that in the least invalidates what has been stated, nor is there a single fact commendatory of "iridectomy" in the sense alluded to.

The writer comes forward, as he says, "in justice to those who practise the operation, rather than in the hope of converting those who condemn it untried." In the first part of this sentence, there is something of a personal character, which I shall not comment on. But as regards the latter, I would remark, that if there be any persons of the class alluded to, I can add besides, that four of my own friends with ample opportunity have tried "iridectomy," and condemn it.

A long tirade follows about persons of the "tory" type of mind, who won't be converted, and who act as drags to the rapid progress of others; but not a word in argument about the real matter in question—not a thing about the principle. I was not disappointed, and breathed a hope that the writer's career may never suffer that violence from the "drags" that he speaks of.

He continues, "if iridectomy be not a remedy for glaucoma, where does one exist? In the hands of the most expert and judicious surgeons, it, doubtless, will not always succeed in restoring sight; but in a large proportion of the cases in which it is indicated, much improvement may be predicted, with as much confidence as justifies the operation for hernia or aneurism."

Surely he does not seriously mean "iridectomy" to be received on the argument of the first remark. That is impossible; and the latter is too weak for what he would wish to imply. We learn that it will not always succeed, but where indicated, etc. Why did he not tell us where? It is just this improvement about which observers differ. Those who trace the natural history of glaucoma, say that after the sight has been entirely and quickly lost from an acute attack, there is often recovery of it, sufficient to enable ordinary books to be read, by the natural process of repair. The comparisons to hernia and aneurism do not hold good, as the least reflection will shew. There is a principle in these operations which is acted on, and is unaltered, whether the operations succeed or not.

There is much said by the writer that has nothing whatever to do with the matter, that I need not notice, as to "iridectomy" for recurrent iritis, and for the linear extraction of cataract. But the following statement I cannot pass. "That it should be employed in hopeless cases, and so fall into disfavour, must have been anticipated; and that it would be discredited by incompetent operators, and by those who do not attempt even to perform it properly, also was to be foretold, almost as a matter of course."

The allusion to incompetent operators is an unhappy one. Every operation in surgery is at times—aye, and very often—badly done, and will be blundered at so long as they are undertaken; but this neither destroys the application, nor the usefulness of them, nor throws those

* Our correspondent should have said "questioning". What we suggested was, that all operations in surgery should be based upon definite principles; and that the principles (so-called) upon which iridectomy was based seemed to us to want definition. EDITOR.

founded on approved principle into discredit. Then I must tell your readers that, among those referred to by me as dissentients from iridectomy, are operators of a class that cannot be called "inapt".

The speaking of inapt operations reminds me that "iridectomy" is not without its perils, even in the hands of experts. I have often thought that, distressing as was the result of its application to a late surgeon, the greatest in his generation, still I believe hundreds have benefited; for had no ill consequences followed, to say nothing of benefit, or not, from the force of circumstances, there would have been a reckless adoption of it for a long time.

The reader, at one of our Association meetings, of the surgical address, which was devoted to the progress of ophthalmic surgery, said that he received "iridectomy" with favour, because that great surgeon had submitted to it.

One more word, sir: I ask, What is the principle on which iridectomy is undertaken?

I am, etc., AN EYE SURGEON.

LETTER FROM R. T. HUNT, ESQ.

SIR,—Perfectly agreeing with the observations on iridectomy in the JOURNAL of Sept. 26th, I beg to offer the following remarks.

Iridectomy is nothing more than the old operation for artificial pupil, by removal of a portion of the iris; but, at present, adopted in cases different from those in which it was formerly recommended. Iridectomy is not now used merely for the purpose of remedying the defect of vision occasioned by an obliterated pupil, or a more or less central corneal opacity; but for treating that condition of the internal structures of the eyeball which has been called by Graefe "acute glaucoma."

This may be briefly described as deep-seated inflammation of the eye, accompanied by a peculiar opacity behind the pupil, and by great loss of vision. Of all the internal structures of the eye, the choroid coat is the most vascular; and there is no doubt that its vessels normally carry red blood, whereas those of the retina, which are also numerous under ordinary circumstances, convey only colourless blood. The very free inosculatation of the choroidal vessels with those of the iris and ciliary processes, and the extreme vascularity of all these tissues, must cause any operation which interferes with the circulation of the iris to materially affect the circulation of the others. I believe that excising a portion of iris (iridectomy) may act beneficially in this manner, by affording the best method of depleting the choroidal vessels. If the operation be restricted to such cases of deep-seated inflammation, we shall, in time, estimate its importance. But it is much to be feared that its adoption in many cases to which it is altogether inapplicable will ultimately prevent its receiving that consideration which it deserves.

I am, etc.,

R. T. HUNT.

Manchester, Oct. 13, 1863.

VILLAGE HOSPITALS.

LETTER FROM ALBERT NAPPER, ESQ.

SIR,—In your paragraph on Village Hospitals, in the JOURNAL of the 3rd instant, you allude to the enormous abuses which they are likely to engender, unless they be established on a just and equitable footing; and that the practice of giving to them our gratuitous services is likely to establish a system of professional demoralisation throughout the country. Should this evil unfortunately be the result, I shall deeply regret the part I have taken in inducing the system; but I can see no grounds for entertaining such an opinion. Nevertheless, your earnest and repeated appeals on the subject demand from us that calm and serious consideration you

advise. That the institution has taken deep root, and is fast spreading itself in all quarters, I have almost daily evidence; and I quite think with you, the time has arrived that a "just and equitable" and an uniform system should be adopted for its future management.

I will not attempt to discuss the subject of gratuitous services, as it would raise questions far too intricate for my present purpose; but would suggest that those gentlemen who are engaged in, or interested in, the formation of Village Hospitals, should take an early opportunity of meeting in London for the purpose of discussing the whole subject; and, upon their united experiences, founding a "just and equitable system" of management.

Should the gentlemen thus engaged be so disposed, I shall be happy to be the medium of receiving their communications, with a view of carrying out the above propositions.

I am, etc., ALBERT NAPPER.

Cranley, near Guildford, October 6th, 1863.

[Nothing could be fairer or more candid than our correspondent's proposal. Such a meeting and such a discussion might be pregnant with good for the purpose proposed. EDITOR.]

COMPULSORY VACCINATION AND REGISTRATION.

LETTER FROM WM. FAWSETT, ESQ.

SIR,—Much has been lately written on the subject of "Compulsory Vaccination," so called; and we have had a staff of M.D.s sent round the provinces to show us how to vaccinate; and to take statistics. Doubtless, we ought to be very grateful for the information and knowledge imparted by these gentlemen; but are we one jot nearer the grand object of general vaccination than we were before? I trow not.

The present system is clogged with certificates and papers that are worse than useless. If the Registrar, when he registers the birth of the child, had one proper form to issue, which must be returned to him by the parent of the child within four months, signed by the medical officer, certifying the successful vaccination of the child, or the contrary, there would no longer be any difficulty in the matter; and he might be made the informer for neglect, with half the penalty on conviction for his trouble. The onus would then rest on the parent whose child is benefited, and not on the medical officer, as it does at present.

The system of certificates is becoming an intolerable nuisance. We have three for each case of vaccination beside our own account, which has to be copied to send to the Board; we have lunacy papers to fill up quarterly (no case, no pay); we have certificates as to the cause of death to give for each pauper, the only remuneration being the honour of attaching our professional titles at the end.

You now ask, "On what grounds we propose to work village hospitals gratuitously?" We are so accustomed to work for nothing, that the very fact of having three, four, or five cases brought under one roof near one's residence, under a nurse qualified to carry out the rules laid down, would be the greatest boon to an union medical officer in a large village, and an immense saving of time and labour.

I have long wished to give my views on the vaccination question, but had hoped that some one would have hit on this simple expedient before.

I am, etc.,

W. FAWSETT,

An Union Officer from the first formation of Unions.

Diubroeke, Market Rasen, Oct. 7, 1863.

Medical News.

APOTHECARIES' HALL. On October 8th, the following Licentiates were admitted:—

Beverley, Michael, Seething, Norfolk
Cook, Robert Foreman, Gateshead-on-Tyne
Emanuel, Leonard, Stanley Gardens, Notting Hill
Harrison, Robert, Nether Levens, Milnthorpe
James, Joshua, Bristol
Jones, Walter, Llansilin, Oswestry
Kemp, Charles Marshall, Augusta Place, Clapham Road
Morley, Frederic, Bicker, Lincolnshire
Sheldon, Thomas, Stratford-on-Avon
Taylor, Hugh, Norwich
Turner, Richard, King's College

At the same Court, the following passed the first examination:—

Carpenter, Edward, St. Thomas's Hospital
Hiron, William, Nathaniel, Sydenham College, Birmingham

APPOINTMENTS.

BRACEY, William A., Esq., elected House-Surgeon to the Birmingham and Midland Eye Hospital.
CORRIE, James J., Esq., elected House-Surgeon to the Leeds Fever Hospital.
HICKS, J. Braxton, M.D. Lond., F.R.S., has been appointed Physician to the Royal Infirmary for Diseases of Children and Women, in the room of Dr. Hutton, resigned.
HOLDEN, John, Esq., appointed House-Surgeon to the Ardwick and Ancoats Dispensary, Manchester.
PADFIELD, James, M.B., appointed Junior House-Surgeon to the Liverpool Northern Hospital.
RAMSON, Robt., M.D., appointed Surgeon to the Cambridge Borough Police.
RAYNER, William, Esq., appointed Resident Medical Officer to the Leeds Public Dispensary.
WILSON, J. G., M.D., appointed Lecturer on Midwifery in the Andersonian University, Glasgow.

ARMY.

CHALMERS, Surgeon W. K., M.D., from half-pay, to be Staff-Surgeon, vice J. T. O. Johnston, M.D.
FYFFE, Surgeon W. J., M.D., 5th Dragoon Guards, to be Staff-Surgeon, vice J. C. Owens.
JOHNSTON, Surgeon-Major J. T. O., M.D., Depot Battalion, retiring on half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.
OWENS, Staff-Surgeon J. C., to be Surgeon 5th Dragoon Guards, vice W. J. Fyffe, M.D.
WATT, Staff-Assistant-Surgeon J., M.D., to be Assistant-Surgeon, vice J. S. Allanby, M.D.

To be Staff-Assistant-Surgeons:—

HEATHER, J. W., Esq.
STEWART, A. A., M.D.

INDIAN ARMY.

DAVEY, Assistant-Surgeon W., Bombay Army, to be Surgeon.
HARRISON, Surgeon J. B., M.D., to be Surgeon-Major Bengal Army.
KELLY, Surgeon J. P., to be Surgeon-Major Bengal Army.

ROYAL NAVY.

FULTON, Thomas, Esq., Assistant-Surgeon, to Plymouth Hospital.
HUNTER, John M., Esq., Assistant-Surgeon, to the *Formidable*, for the *Lizard*.
LAWRENSON, R. C. P., Esq., Assistant-Surgeon, to the *Cumberland*, for Marine Barracks.
MOORE, John T., Esq., Assistant-Surgeon, to the *Indus*.

DEATH.

*SWIFT, Henry, Esq., at Liverpool, aged 60, on October 7.

PHARMACEUTICAL SOCIETY. The sessional prizes, with the Herbaria and Pereira Medals and Bell Scholarships, were distributed at a meeting held at the Society's house on Wednesday, October 7th; Mr. Hills, Vice-President, in the chair. The following were the successful candidates:—*Chemistry and Pharmacy*—Medal, M. Carteighe; certificate of honour, C. Umney. *Botany and Materia Medica*—Medal, M. Carteighe; certificates of honour, J. Watts and C. Umney; certificate of merit, J. Phillips. *Practical Chemistry*—Medal, C. Umney; certificate of honour, H. A. Peele; certificate of merit, J. Bourdas. *Pereira Medal*—M. Carteighe. *Herbaria*—Silver medal, T. Harrison; bronze medal, E. M. Holmes; certificate

of honour, H. Medd. *Junior Bell Scholarships* (value £30 per annum, with free laboratory instruction)—J. Watts and F. E. Pasmore. Mr. Hills presented to the society a bust of the late Jacob Bell, by T. Butler, which was recently exhibited at the Royal Academy.

THE WILL OF WILLIAM M'NAB, Esq., of Ware, Hertfordshire, surgeon, has been proved in London under £30,000 personal property, the executors and trustees appointed being his wife, Mrs. H. M'Nab; his brother, D. R. M'Nab, Esq., of Epping, surgeon; J. T. Humphry, Esq., of New Square, Lincoln's-inn, barrister-at-law; and G. M. Humphry, M.D., of Cambridge. The testator executed his will in 1860; two codicils in Feb. and March 1862; and a third codicil in January 1863. He bequeaths to his wife a life interest in the bulk of his property; bequeathing to his daughter a liberal annuity and the right of presentation to the advowson of Great Amwell; and upon the decease of his relict he leaves the whole of his property to his said daughter Harriet, wife of the Rev. Richard Parrott, B.A., domestic chaplain to the Earl of Lisburne. (*Illustrated London News*.)

VEGETABLE MUSCLES. The *Quarterly Journal of the Microscopic Society* contains a paper by Dr. F. Cohn, "On the Contractile Filaments of the Thistle Tribe." In the *Cynarea* (the Professor says), the fine filaments are inserted into the tube of the corolla, and support at their extremities the anthers, which in all the composita are conjoined into a complete tube. At the time of flowering, this anther tube is closed at the end, and envelops the pistil which arises at the base of the corolla from the inferior ovary. At this period, the anther tube rises at four m. m. above the summit of the corolla. When touched, pollen masses are extracted from its apex, and at the same time the tube exhibits a peculiar twisting movement. After about five minutes, the experiment can be repeated; the pollen is again forced out of the tube, and the twisting movement will again be witnessed. When the filaments are extended, they appear as if longitudinally striated; when contracted, as if transversely striated. He considers the fibres to correspond in their behaviour essentially with unstriated muscle; but he regards their shortening as of a passive nature, and due to elasticity, and their lengthening an active condition which is the opposite to what takes place in muscular fibre. He considers that we may now be said to be acquainted with plants which, so to speak, have muscles, and in the lowest animals which possess no muscles, their contractile parenchyma behaves after the manner of contractile vegetable cells.

LUCIFER MATCH MAKERS' DISEASE. Dr. Bristowe's report, embodied in the official statements of the Privy Council, establishes the accuracy of Von Bibra's conclusions as to the pathology of disease of the jaw-bone from phosphorus. It is quite certain that the disease is in its origin purely local; that it depends on an influence which the fumes of phosphorus are able to exert directly and specially within the mouth. Having set forth the instances adduced by his coadjutor, Mr. Simon reports as follows: "The dangers to which I have adverted, as belonging to the phosphorus industry, belong exclusively to working with common phosphorus. Working with amorphous phosphorus is unattended with danger to health. Since, however, it appears that, with reasonable precautions, the use of common phosphorus for match-making needs not be an unwholesome occupation, I cannot say that, in my opinion, the substitution of amorphous for common phosphorus in the manufacture is, for sanitary purposes, an object to be unconditionally insisted on. Yet, having regard to the fact that amorphous phosphorus not only is manufactured without danger to the worker, but that its use in lucifer-boxes (according to the patented plan of Messrs. Bryant and

May) also involves infinitely less danger of fire than belongs to common lucifer-boxes, I think that the substitution is altogether one to be desired. And of course, with reference to any restriction which the legislature might think of imposing on the utilisation of common phosphorus, it would deserve to be remembered that manufacturers would have at their option the alternative of using without restriction the innocuous amorphous material."

PERNICIOUS EFFECTS OF ARSENICAL GREEN. In his Public Health Report, Mr. Simon reiterates his opinion, that "all industrial establishments which directly or indirectly endanger health ought to be subject to official superintendence and regulation." Sufferings from arsenical green, it would appear, arise much more during the applications than during the manufacture and packing of the pigment; but even in dealing with the raw materials of this dangerous appliance of decorative art, the workman is subject to irritations, which produce itching, blotches, rawness, and perhaps boils—inconveniences which commonly induce him to discontinue work before he has absorbed such quantities of the mineral as would develop signs of true arsenical poisoning. The green is used principally for two purposes—first in the colouring of various papers, either of the sorts used for ornamental wrapping and lining, or of the sorts used for hanging in rooms; secondly, in the colouring of artificial leaves, fruits, and flowers. The pigment is also used, though less considerably, by chromolithographers and toymakers. It is likewise used by house-painters, and as a colour for tarlatanes. More culpably and wickedly, though now only to a small extent, it is employed by the makers of cake ornaments and coloured confectionery. Very considerable suffering is brought to light by the reports collected by the medical officer of the Privy Council. In particular, he adduces the powerful testimony of Dr. Guy, who found, in visiting one of the larger manufactories, where about a hundred young women are employed in making leaves for artificial flowers, that hardly any of them escaped skin disease. The hands, the face, the neck, the roots of the hair, the flexure of the arms, the axilla, and, in a most distressing degree, the genitals, were affected by the arsenical dust; the pudendal eruptions being frequently so severe that the sufferers could not bear to sit down. Dr. Guy examined twenty-five of these unfortunate sufferers, and nearly all of them showed highly developed signs of chronic arsenical poisoning. Their symptoms were excessive thirst, nausea and loss of appetite, vomiting, pains in the stomach, palpitation and shortness of breath, debility, fever, headache, drowsiness, dimness of sight, tremblings, nervous twitchings, and convulsions. An investigation which made some public stir at the time was induced by the death of one of these victims, a girl of nineteen, the coroner's jury bringing in the sternly truthful and suggestive verdict, "Death by arsenite of copper." Her story was but the common story of the workshop, and, except that its fatal termination was so abrupt as to call for inquiry, it differed in no respect from those which Dr. Guy elicited from the many sufferers he examined. Every humane and thoughtful person will agree with Mr. Simon that the tortures which that poor girl must have endured will not have been in vain if the public knowledge of them leads, as it must do, to the amendment of such a system. The case of the little girl who was poisoned by sucking a bunch of artificial grapes; the evidence that emerald green, brushed from paper-hangings in an impalpable powder, is productive of grave injuries, if not of sickness and death; the declaration of Dr. Letheby, that "he had known two children in Hackney die from arsenical poisoning, imbibed while playing for a few hours daily in their father's library"; and many similar warnings, will have done much good, in deterring all classes of the community from encouraging

the use of arsenic in manufactures. Indeed, it seems that the demand for paper-hangings, tarlatanes, and wreaths of the vivid emerald hue produced by arsenite of copper has sensibly diminished.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—OCTOBER 10, 1863.

[From the Registrar-General's Report.]

		Births.	Deaths.
During week.....		{ Boys.. 962 Girls.. 911 }	1873 1298
Average of corresponding weeks 1853-62			1818 1132
<i>Barometer:</i>			
Highest (Mon.) 29.806; lowest (Fri.) 29.417; mean, 29.609.			
<i>Thermometer:</i>			
Highest in sun—extremes (Fri.) 85.4 degs.; (Tu.) 73.8 degs.			
In shade—highest (Sun.) 66.5 degs.; lowest (Tu.) 37.5 degs.			
Mean—53.3 degrees; difference from mean of 43 yrs.+1.0 deg.			
Range—during week, 29.0 degrees; mean daily, 12.6 degrees.			
Mean humidity of air (saturation = 100), 87.			
Mean direction of wind, S.W. & S.E.—Rain in inches, 0.44.			

TO CORRESPONDENTS.

* All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

SYPHILITIC DISEASE OF THE MOUTH.—SIR: My plan of treatment for the above disease is to clean the ulcers well by pressing into them a little dry lint, and then fill them with pure dry calomel; giving at the same time hydragryum cum creta in small doses every night, till I produce the desired effect. If the ulcers are out of reach, I apply sulphate of copper on the end of a small cane or whalebone, rubbing the ulcers firmly. In all ulcerated throats, I have found this plan answer the purpose very well; but in that case I give the calomel by mouth, in small repeated doses, with Dover's powder every night. I am, etc., J. SPROULE.

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Mr. E. BREMIDGE; Mr. H. SWIFT; CHEMICUS; Mr. H. M. MORGAN; Dr. HESLOP; Mr. J. K. SPENDER; Mr. OLIVER PEMBERTON; Mr. LOWNDES; Mr. R. T. HUNT; Mr. R. CRAVEN; Mr. W. FAWSETT; Mr. W. FAVELL; Dr. KIRKES; Mr. JAMES ALLEN; and Dr. H. SANDWITH.

BOOKS RECEIVED.

1. The Diagnosis and Treatment of Diseases of Women. By Graily Hewitt, M.D. London: 1863.
2. The Home-Nurse and Manual for the Sick Room. By Esther Le Hardy. London: 1863.
3. Skin-Diseases of Parasitic Origin: their Nature and Treatment. By W. Tilbury Fox, M.D. London: 1863.
4. Handbook of Physiology. By William Senhouse Kirkes, M.D. Fifth edition. London: 1863.
5. Second Medical Report of the Hospital for Consumption and Diseases of the Chest. London: 1863.
6. The Characters, Actions, and Therapeutic Uses of the Ordeal Bean of Calabar. By Thomas R. Fraser, M.D. Edinburgh: 1863.
7. Introductory Lecture delivered at the Westminster Hospital. By Christopher Heath, F.R.C.S. London: 1863.

Bass's East India Pale Ale.—

This Season's Brewings of this Celebrated ALE are now arriving in casks of Eighteen Gallons and upwards. Our stock of Ale in bottles is in good condition. BARCLAY'S PORTER and STOUTS, in bottle and cask, may also be had of BERRY BROS., & CO., 3, St. James' Street, London, S.W. Also, DEVONSHIRE CIDER.

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See *British Medical Journal*, March 22, 1862, and other Medical Journals. Price 4s. 6d. per lb.

Prepared by GARDEN and ROBBINS, Operative Chemists, 372, OXFORD STREET, LONDON

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LINGEN TESTIMONIAL.

At a Meeting of Professional Friends of Mr. CHARLES LINGEN, of Hereford, held at the residence of J. T. Clover, Esq., 3, Cavendish Place, Cavendish Square, London, on Friday, 18th of September—CHARLES HAWKINS, Esq., of Savile Row, in the Chair—a Discussion having taken place on the action, recently tried, against Mr. Lingen, at Gloucester, for libel, in which a Verdict was given for Defendant, but which verdict is sought to be set aside by an intended motion for a new trial, it was

RESOLVED—"That the Professional brethren of Mr. Lingen are desirous of marking their sense of the propriety and delicacy of his conduct towards the Plaintiff in the late action—Morgan v. Lingen—and their sympathy with him in the trouble and anxiety imposed by that vexatious lawsuit—followed up, as it is, by legal notice to move for a new trial to set aside the verdict of the jury—and that, with a view of giving expression to the sympathy and unabated respect entertained by his medical and private friends for Mr. Lingen, as one who holds a high position in his Profession, and has ever borne a reputation conspicuous for its moral and Christian character—a Committee be now appointed to promote a Testimonial to him."

RESOLVED—"That the amount of Subscription shall not exceed One Guinea from each person."

RESOLVED—"That the following be a Committee (with power to add to their number) to promote the Testimonial, and report progress to a Meeting to be held in London early in November:—

"DR. C. J. B. WILLIAMS, 49, Upper Brook Street.

DR. QUAIN, 56, Harley Street.

J. F. SOUTH, Esq., Blackheath Park.

DR. GUY, 26, Gordon Street.

CHARLES HAWKINS, Esq., 22, Savile Row.

"J. T. CLOVER, Esq., 3, Cavendish Place, Cavendish Square.

DR. W. J. LITTLE, 34, Brook Street.

DR. GEO. BUDD, 20, Dover Street, Piccadilly.

DR. R. H. SEMPLE, 8, Torrington Square.

ALFRED LEGGAT, Esq., William Street, Lowndes Square."

CHARLES HAWKINS, Chairman.

The Gentlemen whose names follow have, since the Meeting, kindly consented to be added to the Committee:—

Rt. Hon. & Rev. Lord Saye & Sele, Archdeacon of the Diocese of Hereford. [ord.

Edward Griffiths, Esq., New Court, Hereford.

Richard Hereford, Esq., the Moor, near Hereford.

George Unett, Esq., Broadward Hall, Salop.

Col. Kennedy, Lausdown Crescent, Cheltenham.

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Howel Morgan, Esq., High Sheriff, Merionethshire.

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Thos. Pritchard, Esq., Ford House, Devon.

Rev. W. U. Coates, Rockhampton Rectory, Gloucestershire.

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Dr. Friswood, Lucas, Brecon.

Rev. John Woollan, M.A., Hereford.

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Rev. Chas. Maybery, Penderyn, Hirwaun, Aberdare.

T. G. Symons, Mynde Park, Ross.

Rev. C. J. Wistrop, Wormbridge, Hereford.

Dr. Bleek Lye, Hereford.

Dr. Robertson, 11, West Mall, Clifton.

Thomas Martin, Esq., Burghill Lodge, Hereford.

For the convenience of Subscribers, accounts have been opened in name of "The Lingen Testimonial Fund," at the Bank of Messrs. Cocksand Inldiph, Charing Cross, London, and at the National Provincial Bank, Hereford, at either of which payments may be made to the Treasurer of these accounts; and Post Office Orders are requested to be made payable at the West Strand Office to Frederick Clapton Sheppard, 5, Robert Street, Adelphi.

F. C. SHEPPARD, Hon. Sec.

5, Robert Street, Adelphi, London, 12th Oct., 1863.

President's Address

IN THE

PUBLIC HEALTH DEPARTMENT OF THE
SOCIAL SCIENCE ASSOCIATION.*Delivered at Edinburgh, October 13th, 1863.*

BY

ROBERT CHRISTISON, M.D., F.R.C.P.Ed.,

PROFESSOR OF MATERIA MEDICA IN THE UNIVERSITY OF EDINBURGH,
ETC.; PRESIDENT OF THE DEPARTMENT.

THE office whose duties I have had the honour of being appointed to discharge at these meetings has been filled in turn, since the birth of our Association in 1857, by men of no less mark than the Hon. Mr. Cowper, Lord Shaftesbury, Lord Ebrington, Lord Stanley, Lord Talbot de Malahide, and Mr. Fairbairn. When I made this discovery, I first became sensible that, in undertaking to deliver this address as their successor, I had incurred a greater responsibility than I was aware of in accepting it. As your President, I thought I could not repeat those general considerations which have been put before you so often and so ably by my predecessors, and which would, I feel, lead in my hands to little else than weariness on your part and unprofitableness on mine. Turning next, among other suitable subjects, to the readiest which lay to my hand, the advancement made in our knowledge of public health since the Association last met a year ago, it appeared to me that the progress made in that time has not been in any way so remarkable that the retrospect was likely to prove either a large enough or a pleasant enough theme. I have, therefore, been led to look for materials to the very opposite quarter. For some time past we have been told a good deal of what has been latterly done in this field. I propose rather to say something of what is still undone. An inquiry of that kind will be less flattering to our vanity, but it may turn out more serviceable, if we should succeed in discovering some well defined "desiderata" for a better knowledge and a better condition of the public health; and more especially if we can thus point out some blanks in our knowledge, which may be filled up by encouragement held out by the Social Science Association.

I propose to look at my subject from a physician's point of view. I am inclined to think it is well that we should all sometimes look at public health from this direction. The branch of knowledge called public health is not essentially medical in all its details. It is far from indispensable that every inquiry concerning it be carried on by the physician alone. On the contrary, much has been done in this line, and well done too, by members of the Association, as well as by others, not belonging to the medical profession. But there are inquiries of great consequence to public health, which no one can fitly undertake without a wide acquaintance with medicine. Others, which may be carried on independently, may, nevertheless, require to be tested by reference to medical principles and medical experience. And,

on the whole, the closer the bond of union is drawn between medicine and public health, the better will it be for the stability of the latter branch of knowledge. This truth seems to have been sometimes lost sight of lately; and perhaps it is on this account that some non-medical inquirers have arrived at conclusions which medical observation refuses to confirm.

Public health, in the simple acceptation of the term, means nothing more than the aggregate health of each individual in a community. But, as a branch of social science, public health deals as little as possible with individuals. Its principles rest on observations made on bodies of men. Inquiries into public health are carried on with reference to bodies of men, because in that way we escape the disturbing effect of collateral circumstances. For a reason somewhat analogous, such inquiries are best carried on, not by individuals, but rather by bodies of men, or by individuals acting under their authority or liable to their check; because we are thus more likely to escape the bias arising from the prepossessions of individual minds. And further, when measures for raising the standard of public health are based on such inquiries, it is not left to individuals to carry them through. They generally require aid from the municipal powers or the general government of a country. Hence the importance of attaching the study of the public health to this Association, as a department of social science; for inquiry will thus be encouraged; its conclusions will be tested by discussion at the hands of many well qualified persons; and the resulting measures will go forth to the nation with the sanction of a public body, and with the aid of many who have either a share or an influence in legislation.

Public health, as a branch of social science, treats of the agents which influence, for better or for worse, the average bodily vigour, mental energy, healthiness, and length of life of the community. The main agents of this kind are the earth and its covering, the air, water, and heat, food, drink, and exercise, occupation and habits, education, whether bodily or mental, and moral discipline. They act by favouring or engendering diseases, or, on the contrary, by circumscribing or extinguishing them. Very few diseases are exempt from the influence of one or more of these agents. But hitherto the researches of the inquirer into public health have been necessarily confined to certain great classes of diseases, and some special diseases of frequent occurrence.

The study of public health may be taken up from the basis of the agents that influence it. The study may be also taken up from the basis of the diseases whose sway is ruled by these influences. The physician naturally prefers the latter mode of inquiry. The relations of diseases and groups of diseases to the various agents I have enumerated is a very large subject—much too large to be exhausted on such an occasion as the present. I may be thought inconsiderate, therefore, in choosing such a topic for this address. But I have thought it might interest you more, and be more in keeping with my own pursuits, if, instead of the eloquent general views usually dealt with by those in my position, I should endeavour to offer you a sketch of the mode in which the principal diseases or groups of diseases are influenced by the agents which affect the public health, and attempt to illustrate by a few apposite instances what has been already done, and what remains to be done, for lessening the prevalence of such diseases, and the mortality, ill health, and pecuniary loss arising from them.

In carrying out this design, I shall take for my guide, wherever I can, the Government Register of Deaths, which ought to be our main text-book in all inquiries relative to public health on the large scale. I must deviate, however, from the register in its classification of diseases, which will not suit my purpose altogether; for diseases are by no means always so grouped there as to

* We have thought it right to publish in full the very important address delivered by Dr. Christison at the meeting of the Social Science Association at Edinburgh. Dr. Christison has himself kindly corrected the address for publication in our pages. EDITOR.

bear relation to the agents which cause or favour them. Keeping that relation in view, we might comprise at least five-sixths of the deaths in the register in the nine following groups:—1. Epidemic diseases; 2. Inflammatory diseases; 3. Diseases of the brain and spine; 4. Diseases of the heart and blood-vessels; 5. Diseases of the digestive organs, not included in the inflammatory group; 6. Diseases of the uterine organs; 7. Diseases of the urinary organs; 8. Diseases of depraved constitution; 9. Death from violence. The remaining sixth of the register consists mainly of deaths whose causes are so vaguely given in the returns, that they are incapable of being arranged with any defined group.

I propose to take the Scottish register for my guide. I suppose it is generally as exact as the English register, and, though on a less scale, yet quite large enough; and it has the advantage of supplying facts from large populations, the most different we could well find in civilised society as to situation and manner of life.

When the Medical Registrar for Scotland, Dr. Stark, drew up in 1861 the *First Detailed Annual Report of the Registrar-General for Scotland* for the year 1855, he found the average mortality to be lower than in any other kingdom in Europe; viz., one in forty-eight annually. He therefore properly added a *caveat*, that this particular year might not yield a true average. I am happy to say that ulterior experience exactly confirms the original result, the average for seven years ending with 1861 being also one in forty-eight. It would be most interesting to trace the diseases which occasion that relatively low mortality, compared with those which cause the higher rates of less favoured lands—Lower Austria, for example, where the deaths actually reach one in 27.4—and thus to see whether in this way the agents which produce, and the influences which extend disease, can be discovered, and then possibly mitigated or removed. But there is an insuperable difficulty in the constitution of the register itself. It may surprise you to learn that even in Scotland, which is supplied with medical men not inferior in professional skill to those of any other country, more than a fourth part of the deaths are returned to the registrar in a shape which renders them useless for such an inquiry as that now referred to. A tenth part of the deaths in 1855 are returned without a cause being stated at all. Of the remainder, about a fifth are returned in a nomenclature which admits of being interpreted in two or more ways, or in any way one likes. The deaths in 1855 were 62,000. Of these, 5732 were returned without any cause being assigned; 5725 were referred to such vague causes as lung-disease, asthma, atrophy, sudden death, teething, and diseases of unascertained seat; and 5685 were referred to the gradual decay of old age. The English register is not quite so defective as this; nevertheless, the deaths unreturned, or faultily returned, amount to a fifth of the whole.

Let it be understood, however, that no blame attaches to the registrars. But there was an error on the part of those who organised the list of names of diseases to be used by the certifiers of death. Lung-disease is a term which positively invites a man to carelessness. It should be extinguished. I suspect most returns under it should be transferred to the category of pulmonary consumption; but it may correctly mean one or other of at least four well defined diseases. The term asthma is not more fortunate. When it causes death, it may mean bronchitis, or emphysema of the lungs, or heart-disease. Dropsy is even worse. It is not once in fifty times the disease, but a mere symptom of the disease; which may be diseased heart, or kidneys, or liver, or lungs, or pancreas, or peritoneum. Deaths from atrophy, sudden death, teething, 1767 in number, are little else than so many confessions of ignorance. The 5685 deaths from old age are nearly on the same footing. Few people

really die through gradual failure of the functions of life. Even the oldest, like young people, die mostly of special diseases. Nine-tenths die of bronchitis, diseased heart, diseased liver, diseased bladder, diarrhoea, and a wearing senile fever, which is apt in old people to be the issue of an attack of almost any acute disease. An observant physician seldom sees his patient truly die of the gradual decay of old age. I can safely say that I have hitherto seen only one man die in that way.

These faulty returns, useless for all statistical purposes, amount in the Scottish register to 17,142, of 62,004, or between a fourth and a third of the whole. The fact suggests a grave matter for our consideration here. We take into high favour the statistical method of investigation. In our prospectus inviting papers, we give an express preference to those based on statistics. But, in truth, in questions relative to public health, the statistical method of settling them may be quite as open to fallacy as any other. There are questions, indeed, as to which this method is positively more fallacious than any other—for example, than general observation and experience—if the statistical basis be so loose as to embrace only two-thirds of the facts which the questions have to deal with. Some time ago, I was desirous of verifying statistically an important fact as to public health, stated to me, on very good authority, as the result of general observation in one of the large islands of Scotland. On applying to the Registrar-General's office, in the hope of testing this statement statistically, I was informed that at that time Government had not sanctioned the necessary additional outlay for summing up the details of the register. At last, came forth the Detailed Report in 1861; and there I find that almost one-half of the deaths in the islands, of which this is one, are referred in the certificates so loosely to their causes, that they must be left out as unserviceable. For my purpose on that occasion, a register so defective was good for very little; for much less, certainly, than the general impressions of an acute physician, which it was my aim to test. I have been repeatedly arrested in the same way in attempting to arrive at results for illustrating this address.

The insufficiency of the register amounts to more than a simple defect. It may be thought, and has been said of such defects generally, that a register is good for so much as the correct returns amount to; in the Scottish register, therefore, for nearly three-fourths of the population. For it is assumed that the deficiency or faulty returns may be rectified by distributing them among the sound ones in proportional rates. This may be true for some purposes. If the inaccuracies might be safely held to bear upon all diseases according to their actual proportion in causing mortality, or in the correct returns, the loss of even a fourth in so large a number as 62,000 deaths might prove unimportant for some inquiries. But, unfortunately, we cannot always safely make that assumption. Defects and errors, in a national register with such a nomenclature as our own, bear much more on some diseases than on others. Deaths from diseases so easily recognised, even by unprofessional persons, as small-pox, scarlet fever, measles, erysipelas, cholera, croup, apoplexy, palsy, dysentery, whooping-cough, and even pure fevers, are far more likely to be returned correctly, and also entirely, than those from bronchitis, pneumonia, pleurisy, diseases of the heart, liver, and kidneys, tabes, and malignant diseases, as to which unprofessional persons are very dubious authorities on almost any occasion, and professional people often either careless or not well informed. The former set may with reason be assumed as all returned, and nearly all correctly returned. On the contrary, the latter set are apt to be returned incompletely and incorrectly. They form, in fact, the great mass of deaths concealed under the heads of atrophy, asthma, lung-disease, diseases of unascertained seat, sudden death, and old age; nor has the

Registrar any guide to a correct distribution of these loose returns among the exact ones.

I hope I may not be thought to have been wrong in bringing this matter forward on the present occasion. The legislature has supplied us with a complex, costly, and, to the members of my own profession, troublesome machine, which, for want of a little repair and extra outlay, has hitherto put out only an inferior article. Such a state of things, in regard to what must be the fundamental basis of most exact inquiries into public health ought not to exist in a country like our own. I submit that the register ought to be put to rights, if possible, and that this Association may usefully lend its influence and aid for the purpose.

It must not be inferred, from what has been said, that the Scottish register may not be applied with security to many statistical inquiries into the public health. On the contrary, it is a sound source of information for the very next topic which I propose to bring under your notice.

The first group of diseases I will notice is the first in the register; viz., that of zymotic diseases. They are so called from the Greek noun, ζυμη, signifying ferment, on account of a rather fanciful resemblance between their origin and the process of fermentation. They might have been equally called by the familiar term epidemic diseases—i. e., diseases which tend to spread at times widely among the people; because, although this word has a more restricted meaning in professional nomenclature, it is used in common speech to include all diseases which ought to be comprised in the zymotic class. They are chiefly simple fevers, eruptive fevers, influenza, puerperal fever, diphtheria, croup, cholera, hooping-cough, dysentery, and others of less note. Of all groups of diseases, they are considered the most important in respect of the public health; for, in the first place, they account for 24.1 per cent., or almost a fourth part, of the mortality of the country. Nor is there any mistake here; because the register is not likely to be far wrong through faulty returns in regard to diseases so easily recognised even by unprofessional people; and, secondly, according to all recent experience, general no less than statistical, it is certain that much may be done, under the will of Providence, by human wisdom and human means, to lessen their ravages, and, above all, to put down their epidemic visitations.

This is a large subject; so large, that I must be content with touching on a few salient points only.

Simple fevers include ague and marsh remittent fever, inflammatory fever, typhus, enteric fever, and gastric fever. The four last mentioned are classed in the register under the single head of typhus. They account jointly for almost a fifth of the deaths from epidemic diseases, and for 4.47 of the total mortality. The first point I shall ask you to note under this head is, that ague is not accountable for a single death in Scotland. There are 107 heads in the register, and that for ague is the only one which stands blank. Hydrophobia, which accounts for a single death, is nearest to it. But the entry under ague, which takes in also the more deadly marsh remittent, is *nil*. And more than that, there is no ague in Scotland. I have asked many of my country brethren if they ever saw a true ague—an unequivocal intermittent fever—of home growth; but no one has been able to assure me that he has seen any in Scotland, except such as I have myself seen; viz., caught abroad, or in the fenny parts of England. But ague was at one time very common indeed in many parts of Scotland. My father, a Berwickshire man, often told me that in his young days, probably about 1775, ague was so common among the farm-labourers of that famous agricultural county, that a prudent farmer always set off on account of it a certain proportion of no-work days for his men in spring and autumn. The same was the state about the same time of the neighbouring

county of Roxburgh. To Dr. Mackenzie, of Kelso, I am indebted for information, unique and satisfactory, as to the dates of the prevalence and disappearance of ague in that part of Roxburghshire. There are dispensary records extant there for one of the oldest dispensaries in Scotland, beginning, in fact, with 1777. The annexed table has been extracted from these records, showing the agues for every year from 1777 till its disappearance in the dispensary books.

Year.	Total admissions.	Ague.	Year.	Total admissions.	Ague.
1777	.. 302	.. 17	1792	.. 570	.. 16
1778	.. 306	.. 33	1793	.. 666	.. 19
1779	.. 460	.. 70	1794	.. 447	.. 9
1780	.. 675	.. 161	1795	.. 513	.. 23
1781	.. 510	.. 103	1796	.. 355	.. 12
1782	.. 440	.. 61	1797	.. 318	.. 9
1783	.. 510	.. 73	1798	.. 415	.. 7
1784	.. 450	.. 40	1799	.. 558	.. 2
1785	.. 573	.. 62	1800	.. 665	.. 4
1786	.. 563	.. 48	1801	.. 433	.. 9
1787	.. 525	.. 24	1802	.. 377	.. 5
1788	.. 577	.. 25	1803	.. 308	.. 2
1789	.. 546	.. 48	1804	.. 422	.. 5
1790	.. 640	.. 18	1805	.. 469	.. 0
1791	.. 715	.. 13	1806	.. 318	.. 1

From this table, it appears that the number of agues rose in 1780 to 161; by which time the total applicants for all diseases was nearly 700. Then it sank gradually to 18 in 1715 applicants in the year 1790; and afterwards it went on fluctuating, but still on the whole diminishing, till in 1800 there were only four agues in 665 patients, none in 1805, and one in 1806; since which year no case of ague appears on the dispensary books. What, then, has been the cause of this striking improvement in the public health of Scotland? In what change of circumstances did it take place? This much is clear. We do not owe the blessing either to the government of the country, or to the College of Physicians—no, nor to social science. We owe it to incidental causes ruled to their end by another Power. In fact, it has been allowed to fall upon the country everywhere, without having even been publicly noticed anywhere at the time—an omission of which we certainly should not have had to complain had any man, or body of men, been able to claim credit for it. The real cause it may now be difficult to discover at so distant a date from the event; but this Association may lend its help. I can scarcely think that the great mass of old family records and remnants of old farm books in Scotland should all be silent on such a subject; and surely an appeal from this Association should call forth the information.

I shall be told that the disappearance of ague in Scotland is generally ascribed to the drainage of the country in the march of agricultural improvement, which began in the Border countries about the period referred to above. This is a tradition. But there are grounds for calling it in question. For example, I was assured, I think about 1820, by a well-qualified friend—the late Mr. Walker-Arnot of Arlary, father of the present Professor of Botany in the University of Glasgow, an able agriculturist and well informed gentleman, who farmed his own property in Kinross-shire—that he had been positively assured by the surgeon of his district, a man much his senior, that ague had all but disappeared from that country before the introduction of improved drainage; and that this gentleman ascribed the change rather to improved living among the farm-labourers. Then we know that a long time elapsed before the practice of extensive drainage extended from the Border counties to other parts of Scotland, where, nevertheless, there is at present reason to believe that ague disappeared about the same time as farther south. And, moreover, there are still marshes in some parts of Scotland, but there is no ague. Three sorts exist—peat-marshes; irrigated meadows, with pure water for the liquid; and irrigations with foul water. But all are alike ague-free. The last sort might with reason be strongly suspected. For, as managed in the immediate neighbourhood of Edinburgh,

they present that frequent alternation of considerable moisture and approach to dryness, that rankness of vegetation, and that abundance of decaying organic matter, which are thought, when combined, eminently to foment intermittent and remittent fevers in countries liable to these diseases. But if there be any doubt as to the general salubrity of the now famous marshes of Craigentinny, as to which I shall have a word to say by-and-bye, there is none, at least, to the total absence of ague among their inhabitants.

There is good ground then for an inquiry, in which this Association could lend its aid, into the circumstances which have led to the disappearance of ague from Scotland. Dr. Mackenzie has supplied one-half of the test. Since getting his table, I have not been able to satisfy myself about the other half. Dr. Douglas, writing his *Agriculture of the Counties of Roxburghshire and Selkirkshire* in 1796, by which time ague had all but disappeared, speaks of extensive draining having been effected by that time; but he also mentions incidentally in many places, "marshes," "marshy lands," "a great deal of fenny land," and "a deficiency of drains." I hope the history of agriculture may yet supply more positive evidence. The practical results may be of great consequence. Many of our colonies are now overrun with ague and its sister remittent fever. It can scarcely be that a successful inquiry into the agencies by means of which ague has been extirpated from Scotland should fail to be of service to our countrymen towards freeing also from that scourge the lands of their adoption.

Scotland is very far from having attained the same happy deliverance from continued fevers as from those of the intermittent type. But there are some very remarkable facts in their recent history, which point to the possibility of such an event and at any rate to the fruitfulness of further inquiry on the subject.

Four different forms of continued fever have been recognised by various authorities—inflammatory fever, typhus, enteric fever, and gastric fever. The registers of England and Scotland recognise only typhus. I presume they do not necessarily hold that all four are of one kind. The general doctrine, which some doubt, however, regards them as all distinct; and I do not mean to call that doctrine into question at present.

The first is in every circumstance the most singular of all fevers; whether, for example, we look to its nature and form or to its strict bearings on public health. It has been variously called synocha, inflammatory fever, simple fever, and relapsing fever. The last name, which it has of late generally borne, is nevertheless a misnomer. It no more deserves the name than ague deserves to be called relapsing fever. It is a fever of tolerably definite duration extending mostly to seventeen days; but with the singular peculiarity that there is an interruption in the middle of it varying from seven to ten of these days. It is far from being a deadly fever. But it causes great suffering, and debility so lasting that it makes a working man unfit for labour for two months, first and last. Strange to say, in this city at least, where it has been better studied than anywhere else, it is never seen but as an epidemic. I have known four such visitations of it—in 1817-20, 1827-28, 1841-42, and 1847-48. But I never saw it in the intervals; nor has any of my Edinburgh brethren. Hence at every fresh appearance it is at first taken for a new fever. It occurs only at periods when work is scarce, wages low, provisions dear, and the labouring classes consequently in unusual distress. In accordance with this fact, it is met with in the labouring population alone—never in the easy ranks of society, unless through very decided exposure to infection. Nor, in the next place, is it an infectious fever. Of this I have produced elsewhere proof which has never been controverted. (See Dr. Tweedie's *Library of Medicine*, 1840, i., 154.) But the infection is not a virulent one; and its progress by infection may be utterly extinguished.

This is the main fact to which I desire to draw your attention as social reformers. Healthy persons in communication with fevers of this kind accumulated in an hospital ward, or lying in less numbers in their own small unventilated chambers, are seized almost certainly if they remain long enough, and are not shielded by a previous attack. But from a single case of this fever in a middle-sized well-aired room it is never communicated to the healthy. With these facts before us, of which I could furnish pointed proof, were there time, it is evident theoretically how such a fever is to be extinguished. The favourite panacea of the present day for the prevention of all fevers, thorough drainage, is not the remedy. The best drainage leaves untouched the real foundation of the disease—viz., penury pent up in airless dwellings. But provide work for the unemployed, obtain in return due ventilation and cleanliness; and the epidemic will soon vanish. First, the new condition of things will make its infectious power harmless; and ere long it will cease to arise by spontaneous generation.

The carrying out of this theory into practice is, however, a formidable difficulty. How is work to be got in hard times for the unemployed? And, still more, how are the labouring classes to be taught the habit of ventilating their apartments? Success must depend on the resources, faith, and energy of a sympathising community, and upon the convictions of its suffering portion. But, at all events, we have a fundamental principle of social economy firmly established—that no epidemic of inflammatory fever can long withstand employment of the workman and fresh air in his house.

Typhus, simple typhus, nervous fever, low fever, putrid fever—a disease so familiar as to need no description here, though very different in form from the last—presents many agreements in those characters which give them both interest in the eyes of the cultivator of social science. It has its epidemic visitations; and fearful ones we have seen all over Britain, especially in this city, where there have been no fewer than five during the last forty-five years—the last and worst having occurred between 1847 and 1849. It puts on the epidemic shape only at periods of want among the labouring classes. However it may arise in the first instance, it spreads by infection. But its infectiousness is not intense. Hence adequate space and ventilation make it innocuous in that way—in so great a degree as to have misled good observers, and made them doubt its infectious property. So far typhus agrees with inflammatory fever. But, firstly, it is far more deadly, one in ten being the probable average of deaths from it. Secondly, it occurs at all times, and not merely at epidemic seasons. Seldom does a week pass in a large town like Edinburgh without one or more deaths from typhus appearing on the register. Thirdly, in these non-epidemic periods it is met with among the rich as well as the poor, and perhaps in as great a proportion to their relative numbers.

Nothing is known of the origin of typhus in non-epidemic periods. Infection will not explain the occurrence of such fevers—not those at least which show themselves in the easy ranks of life. With the most ordinary care, cases of it in that circle do not reproduce it in the exposed; whence, then, could it reach themselves by communication who had not had any exposure to it within their knowledge? Neither does it originate, at least generally, in faulty drainage, or other sources of foul air. In the metropolis, indeed, it is at present a prevailing opinion, much in favour also, as I understand, in this Association, that the sources of foul air are likewise the sources of typhus. But such a rule will not apply in Edinburgh. Foul air undoubtedly favours the spread of both typhus and inflammatory fevers in their epidemic visitations; for, setting aside its possible operation in other less ascertained ways, it implies confined air, want of ventilation, and therefore concentrated infection. I

do not mean to deny that foul air of some kinds may sometimes simply cause typhus. But there must be better proofs than now exist before this can be admitted as the constant or even general fact. Foul air will not account for the origin of the scattered (sporadic) cases of typhus in non-epidemic times. As little will air, merely foul, account for either the rise or the fall of epidemics. Every physician of experience in this city has repeatedly seen in a family a solitary case of well-marked typhus, which no skill could trace to foul air in any shape, or from any source. No one ever heard here of the spread of typhus in the epidemic form being referable to an increase of foul air, apart from the resulting concentration of infectious effluvia from those ill with the disease. We have had within the last few years an instance of the fall of a great epidemic, the worst on record, without any commensurate amelioration of air, drainage, or other branch of cleanliness. This incident is so remarkable in its circumstances as to deserve careful consideration.

The following table, from the records of the Royal Infirmary of Edinburgh, shows the number of fevers annually admitted there since the beginning of the century.

13 months to Dec. 31, 1800..	329	12 months to Oct. 31, 1832..	1394
" 1801..	161	" 1833..	828
" 1802..	156	" 1834..	690
" 1803..	232	" 1835..	826
" 1804..	323	" 1836..	652
" 1805..	175	" 1837..	1224
" 1806..	95	" 1838..	2244
" 1807..	110	" 1839..	1235
" 1808..	111	" 1840..	782
" 1809..	186	" 1841..	1372
" 1810..	143	" 1842..	842
" 1811..	96	" 1843..	2080
" 1812..	103	" 1844..	3339
" 1813..	75	" 1845..	683
" 1814..	87	" 1846..	693
" 1815..	96	" 1847..	3688
" 1816..	105	" 1848..	4693
" 1817..	485	" 1849..	726
" 1818..	1546	" 1850..	520
" 1819..	1088	" 1851..	959
" 1820..	638	" 1852..	691
" 1821..	327	" 1853..	574
" 1822..	355	" 1854..	168
" 1823..	102	" 1855..	201
" 1824..	177	" 1856..	180
" 1825..	341	" 1857..	132
9 months to Oct. 31, 1826..	450	" 1858..	111
2 months to Oct. 31, 1827..	1875	" 1859..	183
" 1828..	2013	" 1860..	252
" 1829..	771	" 1861..	222
" 1830..	346	" 1862..	136
" 1831..	758	" Oct. 13, 1863..	196

From this table it appears that after 1816, for a period of thirty-six years, the continued fevers of Edinburgh, of which typhus formed the largest proportion, seldom fell short in the Edinburgh Infirmary alone of 500 in any one year. In 1818 and 1819, the annual average reached 1300; in 1827 and 1828, nearly 2000; in 1837, 1838, and 1839, nearly 1600; in 1843, and 1844, above 2700; and in 1848 and 1849, 4200. It then suddenly fell next year to 700, and kept that average for five years. But in 1854 it sank again abruptly to 170; since then the annual fevers have never exceeded 200. The average for the last ten years has been 158; last year there were only 136; and this year, which ends for the hospital statistics on 1st October, there were 196. Until 1860 the statistics of the Infirmary did not distinguish the several forms of fever from one another. In 1848 and 1849, however, the annual average of typhus could not have fallen short of 2500; and after that it must have been between 400 and 500 until the year 1854. But in 1860, the number was accurately ascertained to be 67; in 1861, it was 50; in 1862, 14; and in 1863, 74. I am further indebted to the medical officer of the city, Dr. Littlejohn, for the fact that the deaths from typhus for the whole town, registered in nine months since January 1st, have been 18. According to the average mortality of typhus,

this number indicates 240 cases of typhus for the present year.

Now, about the period of this decrease, the drainage of that part of the city, where the chief nests of fever always lay, was improved. But the decrease began decidedly before the commencement of that reform. I am informed by our Superintendent of Drainage, that the works for improved drainage of the worst part of the city—the Grassmarket, Cowgate, Canongate, High Street, and the closes communicating with these—were only begun in 1854, were far advanced only in 1858, and are now all but finished. Neither can the rapid decrease of fever be ascribed to any satisfactory improvement in the cleaning of the lanes and houses of the working classes. I believe that long prior to the decrease, our police had done as much for the cleansing of the fever districts as the impracticable structure of the streets or lanes there and the incorrigible habits of their occupants would allow. And as for the home habits of these people, no such improvement of them has taken place in my time as will explain any other change of circumstance in their social economy.

Here, then, is a discovery which remains to be made in social science. Why is it that typhus, which had been almost a perpetual pestilence in Edinburgh for a third of a century, has been of late wearing itself out, and last year almost flattering us with its extinction? The cause has certainly not yet been discovered. My own strong impression is that the secret will be found to be connected with the theory which has been much canvassed in the present day, the successive changes of type or constitution of epidemic diseases. But as this is a favourite theory of my own (See *Edinburgh Medical Journal*, 1857-8, iii, 577), I shall not here insist on it further than by warning all inquirers into the origin of zymotic diseases in foul miasms, that they run great risk of ascribing to these, and the removal of these, fluctuations in the prevalence of such diseases which are often far more probably owing to a more recondite cause—a change in epidemic constitution. In the meantime, the experience of the physicians of Edinburgh presents us with the precept, also derived from the experience of other great towns, though perhaps nowhere else so categorically, that typhus never can prevail in the epidemic form in face of employment for the working classes and ventilation of their dwellings.

In the present line of inquiry there is no occasion for noticing any other fever than enteric fever. Gastric fever, the only other sort arranged under the head of continued fevers, is not generally acknowledged at present by systematic authors. If it be a separate fever, it is one which, according to my own observation, occurs chiefly in the easy and wealthy ranks of life, and owes its origin mainly to high living and over-indulgence in the excitements of society, whether of the nature of business, study, or amusement. We have but little to do with it therefore. Enteric fever is very differently circumstanced. This disease, variously called dothenteritis, entero-mesenteric fever, enteric typhus, typhoid fever, but most conveniently enteric (bowel) fever, is the most deadly of all forms of continued fever. It was first distinguished from others in Germany in 1763, and was first accurately described in France by Bretonneau in 1812. It began to be distinguished from others in London about the close of the first quarter of the present century, and first of all by Dr. Bright in 1827. A little later a few cases occurring in hospital here attracted great attention. It has since increased in both cities, as well as in Britain at large. In London it has been common for many years, and is sometimes the commonest of all forms of fever. In Edinburgh its course has been very singular, and deserves careful attention with reference to English opinion as to its cause, and the sanitary conclusions to which that opinion leads.

For many years after Bright wrote about it as a fre-

quent fever in London, we saw it seldom here—never in the proper inhabitants of the city, but only in persons brought ill with it from Linlithgowshire or Fife, or who had quite recently left these counties. It began to be studied here with great care on its being recognised in the Infirmary in 1847, in a German lad only six months from his “Vaterland,” on which occasion it was believed that no case had occurred in the hospital for a period of five years. By-and-by it became not uncommon. For some years past every practitioner meets with it. It occurs among old residents and natives of the city. Within a few years it is encountered even among people in easy circumstances, and in the best houses of the town. In our Infirmary statistics it was not taken account of separately from other fevers till 1860. In that year, according to a table supplied to me by Mr. Macdougall, superintendent of the hospital, there were 41 cases of enteric fever; in 1861, 35; in 1862, 79; and in 1863, 67; during which period the fevers of all kinds did not exceed 150 in any single year till the present, when they reached 196. These are no great numbers, and yet sufficient to show a decided tendency to increase during the last fifteen years. Further, Dr. Littlejohn, medical health officer for the city, informs me there have been seventeen deaths from enteric fever reported to the registrar since the 1st of January last, which will correspond with about 120 cases in twelve months, if the average mortality be taken at one in five.

Of all forms of fever none has been more confidently ascribed than this by London writers, medical and non-medical, to faulty drainage and faulty provision of water-closets. If we are to believe what some have advanced on the subject, there is no case which may not be traced to foul air, derived mainly from one of these sources. Were this a well established principle in social science, the extinction of so deadly a fever should be no very difficult matter. Through the publicity given to the discovery by this association, and the influence of its members, we might hope to see protection established far and wide against the pestilence.

But I am sorry I cannot call on you to assent to this theory, and carry out its consequences, for there are insurmountable facts in its way. During the period that this scourge has been alternately growing and diminishing in London, has London become alternately worse and and better drained, or the habits of its working classes alternately less and more cleanly? Does the disease generally appear where drainage is bad, or water-closets wanting or faultily constructed? Does it attack workmen who live in the London drains, as well as those over them, near them, or far from them? I believe all these queries must be answered in the negative. And what is the case here? Our street drains in the Old Town have been much improved during the very period that enteric fevers have been increasing. The habits of the working classes in regard to cleanliness admit of reform undoubtedly, but certainly they have not been growing worse. Besides, the individual cases which have been occurring here have been made the subject of careful inquiry, and in many of them it has been impossible to discover any peculiar source of foul air—anything different from what may be met with in thousands of dwellings where this fever has never shown itself. Of the seventeen deaths hitherto this year, nine occurred in localities to which no objection could be found. And what are we to say of its appearance among people of easy circumstances? In this sphere I have myself known several deaths from it during the last few years, and no fewer than three during the last twelve months. In the first place, why has it occurred in that class of society only of late? Surely not from any general increase in defective drainage, defective water-closets, or other sources of uncleanness. As to the history of individual cases, I have been content to ascribe the disease, in obedience to the theory of London writers, in one in-

stance to gross disregard of ventilation, and in another to a faulty water-closet. But in the last three I have seen, no fault could be found anywhere. Further, this fever does not by any means generally break out where the streets are ill-drained, water-closets wanting, and habits filthy. In countless places of that sort in Edinburgh it is unknown. It may be worth while adding, in reference to an independent question likely to be discussed in this section, that enteric fever is not known in or near the “foul meadows” of Craigminty.

I suspect, then, it must be allowed of this disease, as in respect to most other epidemic diseases, that we do not yet know its cause—that foul air merely favours its invasion; but that its true cause is something much more specific—some *fungus* or ferment which has hitherto eluded our search. In that case, while we shall do well to encourage better drains, more and better water-closets, and better ventilation of dwellings, still we must not count upon thus extirpating enteric fever.

As I am anxious to bring under view some part of a very different subject—the class of diseases originating in a depraved state of the bodily constitution—I regret that I must here quit the subject of epidemic diseases, of which there remain many for consideration—such as cholera, dysentery, diphtheria, small-pox, measles, and scarlatina. Small-pox especially might have been aptly discussed this season before the association, both on account of its increased prevalence last year and because of the hints recently conveyed to the public that the English Vaccination Act is to prove a failure, as well as because a similar Act is about to come into force in Scotland. But time will not allow of so extensive an inquiry as is necessary to complete the whole subject of zymotic diseases; and I must be satisfied with a brief allusion to only one more of them—diphtheria—which happens to be connected with a sanitary question of strong local interest in Edinburgh.

This terrible disease is far from common in Edinburgh. I am glad to say I have seen but one instance of it originating in town, and that was many years ago, before it had begun to be much talked of in any part of Britain. No epidemic disease has been by many late writers in England more confidently referred to foul exhalations as its cause, and even its only cause. I shall not take up that question here, however. My own observation gives me little help in forming an opinion. Let me merely say that, as I, in the single case I have seen in Edinburgh, so likewise my professional brethren, in the course of their observation, have failed to trace diphtheria to any source of foul air. But it is remarkable that it seems to have shown a slight attachment to our irrigated meadows to the east of the city. Dr. Paterson, of Leith, informs me he saw last year five cases at a place on the borders of the district.

I scarcely think, however, that, taken along with the negative evidence I have received from others who practise among the natives of these marshes, these cases, which may have had a more local cause still, can be held singly to convict the irrigated meadows. For I wish to add the information, that I have recently been making careful inquiry respecting this famous and somewhat unsavoury institution; that many years ago my own prejudices were all against the meadows; that I have been compelled to surrender them; that I am satisfied neither typhus nor enteric fever, nor dysentery, nor cholera, is to be encountered in or around them, whether in epidemic or non-epidemic seasons, more than in any other agricultural district of the neighbourhood. About twenty-five years ago, it was stated that the cavalry soldiers at Piershill Barracks, which are situated very near them, were unusually liable to the zymotic diseases caused or promoted by foul emanations; and also, that meat could not be kept in the officers' larder on account of the absorption of foulness and quickly following decay. Either, however, there was some mistake committed

through prepossession, or the meadows are now worked on a better system. But, at all events, I have the assurance of Mr. Lockwood, surgeon of the Scots Greys, that, during their late occupation of Piershill Barracks for two years, the messman of the regiment never observed the meat to be injured; nor did he himself observe among the men anything but remarkable freedom from diseases at large. I think it right, in reference to the late introduction of the Craigentinny system of irrigation into the vicinity of other large towns, that these precise facts should be known.

Of all the diseases in our civilised and modern condition that human flesh is heir to, none have a larger share in causing mortality, and none are more fruitful still in inquiry, reflection, and warning, than the great group of diseases classed as dependent on deteriorated or depraved states of the constitution of the body. One tribe of these, the most numerous of them all, comprises Scrofula, Tubercles, Consumption, and Water in the Head, which are usually classed together as tubercular diseases. The next in point of frequency, called Malignant diseases, because they creep from organ to organ, and lead surely to death, embrace scirrhus, fungus, and other forms of cancer. Gouty and Rheumatic diseases form a third tribe, and Diabetes a fourth; but all these are insignificant in their ravages compared with the others. All diseases of the class agree in apparently requiring for their development a depraved condition of the blood, or of some other component of the human organism; and from other diseases partaking of that character, they differ in being prone to descend from father to son, and increase in that respect by concentration through marriage. With the exception of gout and rheumatism, which medicine can do much to eradicate, they generally make sure of their victim at last. But they are slow to finish their work; and while it is doing, they are the most grievous of all maladies to bear. They are most grievous not only to the victim himself, but likewise to all who have to minister to him in his sufferings. It is a crowning misery, but too little adverted to, that the tending and comforting him, as it falls to the lot of his affectionate family, becomes the duty of those who by similarity of constitution are least fitted to undergo safely so hard an ordeal. Add to all this, that these diseases are the main source of the deterioration of the human race in all physical attributes among such civilised communities as our own, and the Association cannot fail to discover ample inducement to study their influence upon public health.

The Scottish Register in its present form does not fully meet the students' wants in this branch of inquiry. But an useful step or two may be taken with its help, as it stands, in tracing the influence of Consumption, which may probably be held to exemplify and stand for all the rest. The entire class account for no less than 20 per cent. of the total mortality in all Scotland—for 4100 deaths annually in every 100,000 of the population. Consumption alone accounts for more than half of this proportion—viz., 11.5 per cent. of the total mortality, and 237 deaths in a hundred thousand of the population. It has been known for some time that the proportion falls under this average in country districts, and exceeds it in large towns, and Dr. Stark's summary of the Register of 1855 shows that these differences are by no means small. I am not aware whether it has yet been noted, that the difference to the prejudice of the great towns of Scotland is much greater than their notorious difference in general mortality; or putting the case variously, that the difference in favour of the country seems conversely to increase in a greater ratio than the diminution of the general mortality, and *ceteris paribus*, always in an increasing ratio according to the degree of rurality, if I may use the word, of the country district. These important facts can be made out so satisfactorily from the Register, that I will not hesitate to offer you some proofs.

Taking the population of Scotland in 1855 at three millions, and assuming that the deaths from consumption were nearly all specified, or at least uniformly so, which is probable, the total mortality in a hundred thousand was 2080, and that from consumption 237. Dividing the mainland into large towns of 10,000 people and upwards, and the rural mainland, comprising all smaller towns with the pure country, it appears that the mortality from all diseases for the rural mainland in 1855 is 1800, and in the towns 2580—or in the ratio of 4 to 3 against the latter. But the mortality from consumption in a hundred thousand people was in the rural mainland 186, and in the great towns 333, or not much short of double.

But let us look into the facts more narrowly, and the real difference will be found vastly greater. In Glasgow, whose population in 1855 amounted to 356,000, and where all town causes of mortality greatly abound, so that the annual deaths reach 2890 in a hundred thousand, or almost one in 38 persons, those from consumption are so high as 385. Edinburgh and Leith, with a population of 206,000, present a mortality not much inferior—viz., 2380 in a hundred thousand, or one in 42; but there is a greater difference in the deaths from consumption, which are 283. Contrast, however, with even the latter proportions the data derived from the very rural counties of Caithness, Sutherland, Ross, Cromarty, and Inverness, comprising a population of 240,000, and we find that the general mortality falls to 1617 in every hundred thousand, and that from consumption to 179. The consumptive mortality is already less than half of that of Glasgow. But these Celtic mountainous counties are not so favourably circumstanced as other rural counties with respect to other sanitary influences—such as climate, food, and medical aid. Turn then to the agricultural Lowlands of Scotland. In the fine agricultural counties of Roxburghshire, Peebles, Selkirk, and Haddingtonshire, if we exclude two small towns, Haddington and Hawick, which, though under the town standard of the Register (10,000), own to the high mortality of one in forty, there is a population of 97,000, in which the total mortality sinks to one in 65, or 1546 in a hundred thousand, and the deaths from consumption to 138. In Fife, deducting 25,000 inhabitants of two unfavourably circumstanced towns, Dunfermline and Kirkcaldy, the population amounts to 130,000; and here the general mortality is 1750 in a hundred thousand, or one in 57, and the deaths from consumption 125—only a third of the proportion in Glasgow. But neither in Fife, nor in the four counties south of the Forth, which I have grouped together, even when the unhealthy towns are excluded, is the population so free from the disturbing influences of mining and manufactures as may be desirable for a perfect contrast. In the county of Berwickshire, however, we have the most perfect example in Scotland of a population combining the richest agriculture with freedom from the deteriorating influences of mining, manufactures, and large towns. None of its towns contains above 3500 inhabitants; there is, I think, only one large factory in it—a paper manufactory; and there are no mines. Here, accordingly, the total deaths in a hundred thousand fall to 1410, or one in 70, and the deaths from consumption to 104. The general mortality is nearly one-half of that of Glasgow, and the share contributed by consumption is as nearly one-fourth of the proportion in that city.

	Mortality in 1 in 100,000.	Consumption in 100,000.
Glasgow	38	385
Edinburgh and Leith	42	283
The North Highland Counties.....	62	179
Four Lowland agricultural counties, excluding two towns.....	65	138
Fife, excluding two towns.....	57	125
Berwickshire	70	104

It will be objected to these results, as the basis of evident deductions, that, as I began by rating the general authority of the Register low, its trustworthiness in the particulars now made use of must be proved. This is easily done. The data for the North Highlands may be insecure; but, in all other respects, it so happens that I have used the Register where it is most worthy of confidence. The returns for Glasgow, Edinburgh, and Leith, and the lowland agricultural counties, are very nearly complete; and in all these parts, consumption has so well understood a meaning, that, in using the term, the errors must be few, and, at all events, pretty equable. Others may object, that I am limited to the statistics of a single year. True. That may affect the general mortality, and certain diseases; but there is no ground for supposing consumption to be one of the diseases whose range varies one year with another. The basis in the case of Berwickshire is narrow; for the population in 1855 did not exceed 36,500. Still, until Government shall favour us with a larger basis by enabling the registrar to publish several years of "detailed reports", it is in the meantime a remarkable fact, supplied by every part of the Register for 1855, which can be aptly and fairly used for this inquiry, that wherever great towns, manufactures and mining concentrate and confine great bodies of the people, there will consumption be found to spread its ravages in a much greater ratio than the increase of the general mortality; and, conversely, that the more the influence of these deteriorating agents can be excluded, the more does consumption progressively decrease, and in a much greater ratio than the decrease in the deaths from disease at large.

This general rule applies also, and even with greater force, to the three other diseases of the tubercular class scrofula proper, tabes, and hydrocephalus. The certificates sent to the registrar cannot be so much relied on here for accuracy as in the case of consumption. But the errors must be nearly equable for such parts of the Register as I require to use for the main facts. The proportion of deaths caused in all Scotland by scrofula, tabes, and hydrocephalus together is, for every hundred thousand persons, 960, being a little more than $4\frac{1}{2}$ per cent. of the total mortality. But the inequality of the distribution of these deaths between town and country is extreme. In Glasgow, for example, the proportion in one hundred thousand is 177; in Edinburgh, 96; in the six lowland agricultural counties, 32; in Berwickshire singly, 21. Where a pure and rich agriculture predominates, the havoc caused by these diseases is reduced almost to a sixth of what it is in a great town, such as Glasgow; and in the purest of rich agricultural districts, it is brought down even to a ninth.

The tribe of Malignant diseases are supposed by some to take the place after middle life of hydrocephalus, tabes, and consumption, whose season is from infancy to confirmed manhood; and, therefore, the former have been considered to belong, like the latter, to the developments of the scrofulous or tubercular habit of body. In that case, it might be expected of them that they should follow the law of prevalence which rules tubercular diseases proper. The Register, unfortunately, cannot be used to test this conclusion closely. The greater part of malignant diseases are concealed in the Register under the head of other diseases. Cancer, the only heading for them, accounts almost exactly for $1\frac{1}{2}$ per cent. of the mortality. But at least as much lurks under the heads of chronic diseases of the stomach, liver, bladder, kidneys, and womb; another set, at least as numerous, are returned under old age, atrophy, and dropsy; and, on the whole, the entire tribe cannot be reckoned under 6 per cent. of the general mortality. For estimating the comparative prevalence in different circumstances, the only returns which can be safely used are those under the head of cancer. The result is

quite at variance with the law for tubercular diseases. Town and country seem to share alike in the inflictions of this grim visitor. But the details are so contradictory to one another, that the data appear unsafe. Thus, in a hundred thousand people, the number for the six lowland agricultural counties is 35; for the six largest towns, 29; for the four last of these—Aberdeen, Dundee, Paisley, and Greenock, 26; for Edinburgh, 54; for Glasgow, 18. On the whole, it would appear that town life cannot be charged with the evil of fostering malignant diseases; and their causes, whether original or accessory, still remain to be discovered. But it is very different with the much more numerous tribe of tubercular diseases. In a first-class town, such as Glasgow, tubercular diseases account for 20 per cent. of the total mortality; in an agricultural county like Berwickshire, for 8 per cent. only. In a given number of townspeople, five die of tubercular disease for one in the same number of countrymen. Nor is this all the evil which life in a great city must lay at its own door. Tubercular diseases mainly are at once the cause and the test of the deterioration of a race in physical excellence. This mishap, though a more hidden consequence than an increased death-rate, is one no less sure to follow; and it is in the long run even worse for the wellbeing of a nation.

Philanthropists and legislators, in dealing with the unhealthiness of towns, have, until lately, had chiefly to do with epidemic diseases as their main source of excessive mortality. But it is apparent that tubercular diseases are a still more serious source of destruction to the wellbeing of a great city. It is also most probable that the abatement of their ravages will need a different description of measures from those which have been proved to be serviceable against diseases of the epidemic class. The discovery of the necessary measures is a duty which it peculiarly becomes this association to press upon the Government of the country, and also upon the great, the wealthy, and especially those whose business of life it is to amass wealth through the labour of the working classes, and whose requirements have occasioned the concentration of the people in overgrown towns, with all its concomitant evils.

On considering the whole circumstances attending the development or the circumscription of tubercular diseases, as brought out by a scrutiny of the Scottish register, and adding the reflections drawn from long professional experience, I cannot at present see any more probable source of the fearful growth of these diseases in great towns than the want of open-air exercise. Several excellent inquiries have been published, which point to certain trades as greatly contributing to develop tubercular diseases. A systematic general inquiry of the same kind might bring to light the fact that it is only a few trades which have to account for the high town mortality, and then our course would be clear and simple. But I confess, I have no hope of so simple a solution of the problem. All special inquiries hitherto made, except in the instance of one or two trades which have a special evil of their own to contend with, point in the same direction for the cause of concentration of tubercular disease in great towns—viz., a conjunction of defective exercise and exclusion from the open air. If this prove, on a more extended inquiry, to be the great or universal cause of evil, there is no remedy within reach except the spreading out of a city, the finding lungs for it in the shape of parks and gardens, the surrender to the working classes, and, above all, to the sedentary trades, of a proportion daily of that time which is now too entirely demanded of them for the toils of their craft, and the creation among them of a taste for the active exercises which were the pastimes of their ancestors. Something has been doing lately in this direction by philanthropists, who have felt a necessity for action through a species of instinct, or through general

observation of the present fitness and unfitness of things; and every now and then we have to record the generosity of an individual thinker and actor in this field. But we have now before us, from sundry quarters such precise and concurring evidence of the enormous extent of evil arising from the present mode of town life among the working classes, that, looking especially to the still increasing growth of our already overgrown great towns, and the stationary or rather retrograding numbers of our rural population, there is loud call indeed for public, systematic, extensive, though it may even be costly, ameliorations.

I am very unwilling to quit the deeply interesting subject of constitutional diseases, with which I propose to conclude my remarks, without adverting shortly to a most remarkable fact which has been lately made a matter of controversy relative to the circumstances which influence the dominancy of the most important of them all—consumption. I will therefore crave your attention for a very short time longer, because I have it in my power to throw a little light upon the question.

In 1848, an intelligent young practitioner of the Island of Lewis, when he graduated at Edinburgh, wrote a thesis on the medical topography of the island, for which he was awarded one of the university medals of the year. In this thesis the author, Dr. Macrae, mentioned that in his experience he had never met with the disease pulmonary consumption in any islander. The statement excited great surprise at the time, but was lost sight of soon by most people, though never by myself, to whose share the thesis fell for examination. As soon as the Scottish register was established, I asked Dr. Stark, the Medical Registrar, to look into the matter; but an insufficient staff prevented him from doing so till the "Detailed Report" for 1855, was undertaken and published so lately as 1861. Dr. Stark there takes up the question; speaks of a "tradition" prevailing in the Western Isles as to their exemption from pulmonary consumption; notices the fact that one medical gentleman had confirmed the tradition; but says that the register does not bear out the proposition; at the same time acknowledges that the returns are so incomplete, and the term consumption so vaguely used in the Isles, as to render the register an unsafe guide; and, after all, thinks he can make out, after proper allowance for errors, that consumption is very decidedly less frequent in the Isles than in Scotland at large. I find, however, that the register itself positively proves consumption to be still less frequent in the rich agricultural lowlands of Scotland than Dr. Stark has made it out to be, with allowance for errors, in the Western Islands. But the truth is, the returns to the registrar from these islands are so very faulty that, after looking carefully into the subject, it appears to me they are wholly unfit for use in such a question.

I, therefore, referred the other day again to Dr. Macrae, begging to know his ulterior observation upon a much larger experience than in 1848. He replies, that he continues to obtain the same result; that consumption in Lewis is almost entirely confined to strangers temporarily resident there, and to natives who have resided and contracted the disease elsewhere, chiefly as domestic servants in the southern towns of the mainland; and that natives who stick to the island are exempt from the disease, except in a few rare instances, where it had been brought on under long privation of food and exposure to cold. Adverting to the defects in the register, and the jumbled mode of using the term consumption in the return, he adds, that he investigated the reported cases for the last three years in the Stornoway district, which contains a population of 8500 inhabitants; that the total deaths were 444, or 1 in 61; that 24 deaths from consumption were registered; that every case had been seen at one period or another of its course by a medical man, so that he could trace it out

accurately; that 8 of the 24 proved to have been bronchitis (a common mistake), 2 tabes, and 1 dropsy; that of the 13 true consumption, 5 were residents from the mainland, and 4 native servants who had returned ill of the disease from service in Glasgow. Thus, we have only 4 cases in three years among the true resident natives of the island, or 16 only in 100,000. I have similar testimony from a very able authority in another island Dr. McColl of Mull, who brings the experience of thirty-three years to the inquiry. He informs me that in his island, which contains 12,000 inhabitants, he has scarcely ever known consumption occur, except among immigrants bringing with them the constitution of the mainland, or natives who had gone thither early to contract it, but returned to die on the soil of their birth.

I do not know a more interesting fact in the whole statistics and pathology of this melancholy disease than the apparent exemption of our western islanders from it. Nor is there any limited statistical inquiry more worthy of being encouraged by our Association, and satisfactorily cleared up as to its amount and causes, than this wonderful immunity, which is now no mere "tradition."

I feel that I must apologise to this meeting for having detained it so long with a somewhat excursive inquiry. More especially ought I to do so, because I do not claim to have brought before you anything positively new—at least, of the nature of general principles. My purpose was to revive some old principles concerning public health, which have been latterly kept rather in the shade; to illustrate them and others by placing them before you in a new and stronger point of view; and to confirm prior observations by my own. I shall be content if I may be thought to have succeeded in some measure in these objects.

THE SICK POOR OF BETHNAL GREEN. At a meeting of the Board of Guardians of the parish of Bethnal Green held on the 19th instant, the following Resolution was put and carried:—"That in consequence of a long continued series of causes, this board has lost all confidence in Dr. E. Moore, one of the district medical officers of this board, in which causes are embraced neglect of patients, extraordinary claims for vaccination, and extra midwifery fees—the latter being, as we are instructed, six times the percentage of ordinary medical statistics—determined opposition to, and public slander of, the board by gross falsehoods, the getting up of the unnecessary inquests for the purpose of degrading the parish and bringing on the poor-law system by public appeals to the benevolent, and for neglecting and refusing to keep his books as ordered by the Poor Law Commissioners; in consequence of these and other practices, which greatly tend to hinder the successful working of this board, the Poor Law Commissioners are hereby respectfully requested to sanction the dismissal of the said Dr. E. Moore from office." The proposer said that it became a serious case when one of their own officers took an antagonistic position to the board, and endeavoured to bring them into contempt. With respect to Hollybush Place, he had Dr. Moore's medical report book before him, and of the four cases of death mentioned by the newspapers as occurring through blood-poisoning, three were described as eruption, marasmus, scarlatina, and catarrh, but not one word about "blood-poisoning." He was of opinion, and that opinion was backed by gentlemen belonging to the medical profession, that scarlet fever was more the immediate cause of death than anything else. He said that Dr. Brotherton was prepared to give a certificate that all the children had died from scarlet fever, and not from "blood-poisoning." It was well known to all, that this animosity of Dr. Moore's had arisen from his being obliged to disgorge certain vaccination and midwifery fees.

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

ON THE DERMO-PATHOLOGY OF CELSUS.

By ERASMUS WILSON, F.R.S.

THE nomenclature of cutaneous diseases is derived chiefly from the Greeks, who were the fathers of medicine. The descendants of the god of physic, Æsculapius, the Asclepiadæ, were observers deserving of all admiration; their observations were recorded with extreme care, and became the foundation of the works of Hippocrates. And the knowledge of Hippocrates, with his followers for five hundred years, has been handed down to us in the writings of one of the most distinguished of the successors of the Greeks, the great Roman physician, Celsus, whose labours date from a period antecedent to that of the Christian era.*

Cutaneous diseases being external, at least in their manifestation, are favourably seated for examination. Hence, facilities for their observation were as great at the beginning of the world as they are at the present time; and we have proof, in the writings of the ancients, that the opportunity was not lost, but, on the contrary, was eagerly improved, and these diseases were stamped unmistakably with names, which have come down to us unchanged; and are still in familiar use at the present day.

Under these circumstances, it is a matter of interest, if not of practical importance, that we should endeavour to discover with certainty the exact disease to which a particular name was given; not only that we may apply the name in the same signification and correctly at the present time, but also that we may gather such a notion of the disease as its name would have conveyed to the ancient physicians. The names of these affections would seem to have been sometimes suggested by their appearance; sometimes by their symptoms; and sometimes by the theory of disease which existed at the time when they were observed and their history recorded; and a knowledge of their meaning cannot, it appears to me, be otherwise than useful to modern investigators in pathology.

With a view to open an inquiry into this subject, and to compare the knowledge possessed by the ancients with that of the present time, I have had recourse to Celsus; and I subjoin an analysis of his views with regard to cutaneous medicine, with a brief commentary in illustration of his meaning, founded on my own researches and experience. I have had, also, another motive for undertaking this task; namely, the endeavour to clear up some confusion which exists at the present time with reference to the proper application of certain of these ancient terms.

Celsus, in his well-known work on medicine, given to the world nearly twenty years before the birth of Christ, enumerates between forty and fifty cutaneous affections, which he treats of in his third, fifth, sixth, and seventh books; viz., in his *third* book, "On the Dietetic Treatment of Diseases"; in his *fifth* book, "On the Treatment

of Disease by Medicines"; in his *sixth* book, "On the Treatment of Local Diseases by Remedies"; and in his *seventh* book, "On Surgery."

In his *third* book, chapter xxv, he gives an account of Elephantiasis. "The disease which the Greeks call elephantiasis," he observes, "is almost unknown in Italy, although very common in other regions of the world. The entire body is attacked, even to the bones. The surface of the body is thickly studded with maculæ and tubercles, at first red, then becoming brown; the skin is remarkable for inequalities, in some parts thickened, in others thinner than natural; in some, hard; in others, soft; in many parts rugged, and apparently coated with scales. The body is emaciated; the bones, the calves of the legs, and the feet, swollen. When the disease is of long standing, the fingers and toes become lost in the swelling; feverish symptoms are developed, and the patient sinks overwhelmed with suffering."

Nothing can be clearer than this description, and in a few words, more perfectly illustrative of that terrible disease, the *Elephantiasis Græcorum*; a disease, as Celsus says, of the entire body, involving skin, bones, indeed, every tissue and every organ, and especially the nerves and the brain. He makes no use of the word *lepra*; and there is no allusion to that disease of the cutaneous tissues which is known as the Barbadoes leg (*Bucnemia tropica* or *Elephantiasis Arabum*), which has since been confounded with the true elephantiasis. The "losing of the fingers and toes in the swelling" to which he refers, is a common character of elephantiasis, and depends upon œdema; and not, as in the Barbadoes leg, on obliteration of the toes by hypertrophy of the tegumentary tissues. Moreover, I do not remember to have ever met with a recorded instance of *bucnemia* of the upper extremities.

In his *fifth* book, Celsus speaks (chap. xxvi) of Erysipelas; (in chap. xxvii) of the Bites and Stings of Animals; (in chap. xxviii) of Carbunculus; Therioma; Ignis Sacer; Pernio; Struma; Furunculus; Phyma; Phygethlon; Kerion; Acrochordon; Thymion; Myrmecia; Clavus; Pustule; Exanthemata; Phlyctenæ; Phlyzacion; Epinyctis; Scabies; Impetigo; Papulæ; Vitiligo; Alphas; Melas; and Leuce.

In his *sixth* book, he mentions Defluxium Capillorum; Calvities; Porrigo; Sycosis; Area; Alopecia; Ophiasis; Varus; Lenticula; Semeion; Ephelis; and Phtheiriasis.

In his *seventh* book (chap. vi), he discusses certain tubercles occurring on the scalp; viz., Ganglion; Meliceris; and Atheroma.

The classification of diseases adopted by Celsus, is that which was common in the early days of medicine. They were arranged, in the first place, *remedially*, according to their amenability to hygiene and diet, to drugs, or to surgical manipulation. And, secondly, *topographically*, according to position, whether general, partial, or topical. Following upon this plan, cutaneous diseases come to be considered under four heads; viz.:

1. Diseases, general in their nature; to be treated by diet.
2. Diseases which may occur on any and every part of the body; to be treated by medicines.
3. Diseases limited to a particular part; to be treated by medicines.
4. Diseases to be treated by surgical means.

In the *first* group, elephantiasis stands alone.

In the *third* group—namely, of topical affections—are found diseases of the hairy scalp, the eyelids, and the face.

The *fourth* group contains encysted tumours only.

In the *second* group, that which comprises diseases which may occur on any part of the body, the greater number of these disorders are assembled. And his mode of arrangement is to take the largest, most prominent, and visibly most important, first—for example, carbuncle—and gradually descend from decided pro-

* Celsus was born fifty-three years before Christ; his works were published eighteen years before Christ; and he died, at the age 60, in the seventh year of the Christian era.

minence to mere asperity, placing first, asperity with inflammation—for example, exanthema and scabies; then asperity without inflammation, as in the case of alphas; and, lastly, smoothness, as in the instance of leuce.

This arrangement is simple and natural; and such as, in the absence of better knowledge of the structure of the skin, may be admitted to have been as good as could have been adopted; although, in modern times, it must appear strange to find carbuncle placed by the side of carcinoma; lupoid ulcers next to chilblains; warts and corns against abscess; and the whole of these taking precedence of urticaria, eczema, and lepra; and for no better reason, than because they were more prominent and more bulky.

FIFTH BOOK. *Erysipelas* is treated of as a complication of wounds; and, also, as occurring spontaneously; it is attended with the greatest danger when it attacks the neck or head.

The *Carbuncle* he takes as the first illustration of "interior ulcers originating in corruption of some part of the structure of the body"; and he follows up carbuncle with the examples here enumerated; namely, Carcinoma; Therioma, a phagedænic ulcer; Ignis sacer, an eating ulcer; Chironium, a callous ulcer; Pernio; Struma; Furunculus; Phyegethlon; Phyma; etc. The general idea of these affections is, a swelling or tumour, which opens externally, gives exit to humour, and is more or less difficult of cure.

Carbuncle, he observes, "is red at first, but afterwards livid; it is dense, hard, and solid, and spreads by its base more or less quickly. It is covered with vesications, which are but slightly raised, black, or more or less livid, in correspondence with the colour of the sanies which they contain; the surface beneath them being almost black. The treatment of carbuncle is, the application of the actual cautery; and the subsequent management of the case, such as is adapted for an ordinary burn."

Therioma "is an ulcer, sometimes spontaneous, sometimes attacking a part already the seat of ulceration; it is livid, almost black, and pours out a copious secretion resembling mucus. It is insensible, only itching a little; but the circumference is inflamed and painful, and from time to time the ulcer also is inflamed. Sometimes it bleeds, and sometimes it spreads. An increase of all these symptoms constitutes phagedæna."

Therioma would seem to be, either a syphilitic ulcer of the constitutional type, occurring in a low and irritable condition of the body; or, it belongs to an allied affection, *lupus*, *lupus exedens*; if the latter had been intended, it may be presumed that the common seat of that disorder, in the nose, would have been indicated. The term "*therioma*" is no longer in use.

Ignis sacer "must also be mentioned among the ill-conditioned ulcers. There are two kinds. One is reddish, or pale red, raised in permanent pustules, of which the principal are of uniform size, but the greater number very small. These pustules contain pus, and are often red and hot; the disease spreads and sometimes heals on the part first affected; sometimes, when ulcerated, the ulcer becomes permanent where the pustules have burst; and a discharge takes place, which seems to be intermediate between sanies and pus. This eruption occurs principally on the breast or sides, on the limbs, and chiefly on the soles of the feet."

"The other kind is a more superficial ulceration, not deep, but broad, somewhat livid and uneven; healing in the centre and progressing by the circumference; and often, when apparently sound, breaking out again; the skin of the circumference which is about to be attacked, being swollen, hard, and of a dark red colour. This disease chiefly attacks persons advanced in age, or those of unhealthy constitution; and principally the legs. *Ignis sacer*, as it is the least serious of the eruptions that creep, is, at the same time, almost one of the most

difficult of cure. One day of fever, by drying up the noxious humour, becomes an accidental remedy. And the disease is least dangerous in proportion to the thickness and whiteness of the pus."

From the above description, we perceive, that *ignis sacer* is a chronic disease; that it consists of an eruption, in one case, of a pale red colour; in another, livid; that the tubercles (pustules) contain pus and ulcerate; and that the disease spreads, healing on the part first attacked, but sometimes constituting a permanent ulcer, which gives exit to a sero-purulent secretion more or less tinged with blood. The eruption is subject to exacerbations of inflammation, in one case, attended with considerable congestion, tumefaction, and hardness of the surrounding skin; and is very difficult to cure.

These characters correspond with two forms of disease known at the present day; namely, *lupus* and *syphilis*. The "pale red pustules" of the first variety may represent *lupus non exedens*; the livid kind, *lupus exedens*. The syphilitic eruptions which correspond with the above description are such as may be termed syphilitic *lupus*, and belong either to the tertiary period of constitutional syphilis or to hereditary or scrofulous syphilis.

It will be observed, that I have rendered the term "pustule" by the word "tubercle". Pustule, as used by the ancients, signified any eruption of the skin accompanied with prominence, and corresponds very nearly with our own word "eruption". It had no reference to the contents of the prominence, as at the present day, and was not, as it is with us, a *prominence of the cuticle filled with pus*. These pustules, says Celsus, "contain pus, and are often red and hot." The presence of pus in the pustule is here shown to be an accidental complication; while the tubercular nature of the eruption is indicated by the "pustules" being "often red and hot." But I shall have further occasion to illustrate this meaning of the term pustule; and will only add, that *ignis sacer* is represented by the author as being an ill-conditioned ulcer, and is associated, as we have seen, with *carbunculus*, *carcinoma*, *therioma*, and *struma*.

Dr. Miligan places the terms *herpes zoster* and *herpes circinatus*, in the marginal notes attached to his edition of Celsus, against the two varieties of *ignis sacer*; which is evidently an error. *Ignis sacer* is "herpetic", inasmuch as it "creeps"; but in no other particular can any resemblance be traced. And there is good reason for believing that the application of the term *herpes* to a simple vesicular eruption, not remarkable for a serpiginous habit, is altogether a blunder of modern times.

Pernio is well described by Celsus; and his description affords another example of the signification attached to the word "pustule". "*Interdum pustulæ oriuntur, deinde exulceratio*." Here *pustulæ* stands for the *bullæ* of our nomenclature. Again, as to the word "exulceratio", this is intended to convey, not a loss of substance, as in the modern idea of ulceration, but a simple denudation of the derma. The instant a "pustule" broke, the state of "exulceratio" was established; no destruction of the substance of the skin was necessary, as would be the understanding at the present time. I may illustrate the idea further by reference to the action of a scald or a blister;—the raised cuticle is the "pustule"; the cutis exposed by the rupture of the cuticle, the "ulcer".

Struma "likewise is a tumour, in which, beneath a crust of pus and blood, things like small glands (moist granulations) arise, which are particularly troublesome to the physician; for they excite inflammation, and never mature properly; and, whether they be treated with the knife or by remedies, they generally spring up again by the side of the cicatrix, but most frequently after the use of local applications; hence they are always tedious. They occur chiefly in the neck, but also in the armpits, groins, and sides of the trunk.

Furunculus "is a conical tubercle attended with inflammation and pain, the pain being aggravated by suppuration. When it opens and the pus escapes, the portion of flesh converted into pus is apparent; as also a whitish or reddish corrupt part, which is called by some the ventricle (core) of the boil. It is not dangerous, and requires no treatment; it matures and bursts spontaneously. But, if there be much pain, treatment may be adopted, to bring about an earlier evacuation; and the pus being pressed out, no further attention is needful."

Phyma "is a tubercle something like a boil, but rounder and smoother, and often larger. For a boil never exceeds and is rarely so large as half an egg; but the phyma is greater in extent, but neither as painful nor attended with as much inflammation. When laid open, it is found to be filled with pus; but there is no ventricle (core) as in the boil, for all the corrupt flesh is changed into pus. Phyma is most frequent and most curable in children, less so in adolescents; while in age, with its denser tissues, it occurs but seldom."

Phyma is, clearly, nothing more than a cutaneous abscess, of a certain size.

Phygethon "is a superficial tumour, somewhat broad, and in its nature something like a pustule. The pain caused by distension is excessive, and wholly disproportionate to the size of the tumour; sometimes inducing feverishness. It matures slowly, and only partially suppurates. It is commonly met with in the neck, the axillæ, and the groins. We call it *panis*, from a certain resemblance in shape to a loaf of bread."

This description corresponds with that of the troublesome and very painful, partially suppurating axillary abscesses, which have been so common during the few last years, in connexion with furunculus. Its comparison with a pustule simply indicates its prominence.

Kerion "is a genus of ulcer, so named by the Greeks, from its resemblance to the honeycomb. There are two species.

"One is whitish, and like a furuncle in shape, but larger and more painful. When it matures, it presents a number of foramina, through which exudes a glutinous and purulent humour; but it never matures thoroughly. When opened, it is found to contain more corrupt matter than a boil, and is also more deeply rooted. It is seldom met with elsewhere than among the hair.

"The other kind is smaller, prominent, hard, broad, greenish, pale, and more ulcerated, since the foramina correspond with every individual hair, and give exit to a glutinous palish humour, of the consistence of honey, or resembling the juice of the misletoe, or sometimes oil. The pain and inflammation are severe, so as, in some instances, to excite a sharp attack of fever. . . . If the usual remedies fail in effecting a cure in either of these diseases, the ulcer should be cut out to the full extent of the diseased structure."

The consideration of kerion under two heads is an illustration of the careful observation of the Greek physicians; but, in reality, there is no ground for the distinction, which amounts simply to a larger or smaller development of the same disease. The peculiarities of that disease are well explained by the author;—its prominence; its apparent perforation with foramina, which are, in truth, the mouths of the hair-follicles; the copious exudation of a muco-purulent fluid; and the non-maturation of the tumour—that is, that although seeming to be in progress towards a regular abscess, it never attains that state; but, after pouring out a certain quantity of morbid secretion through the follicles of the skin, it gradually subsides, and is removed by absorption. Under these circumstances, puncture with the lancet is rarely necessary, and ablation by the knife wholly uncalled for.

It is evident that kerion is a suppurative inflammation of the hair-follicles, and under that name I have

described it. But it has, besides, an especial interest for dermatologists, as illustrating the primitive idea of a honeycomb as applied to cutaneous disease; and it is to be regretted that in modern times this designation should have been used so vaguely in connexion with several very dissimilar forms of disease; and, not least, that it should have been given to favus—a disorder apparently unknown to Celsus. In the "honeycomb" of the Greeks, there is very little trespass done to the imagination. The kerion or melikerion is a swelling perforated all over with openings, these openings the channels of the hair-follicles, and filled to the mouth with a yellow puriform matter; while the tumid skin rises between the openings, like the frame of the comb. One circumstance, however, Celsus has omitted; namely, the destruction of the hairs. They are loosened by the inflammation, detached from their adhesion to the fundus of the follicle, and cast forth; and, as a consequence, the patch becomes bald or scaled. In a word, this is the "scaled head" of popular language.

"There are certain tumours that resemble warts, although differing from them both in name and in the nature of the disease.

"One kind the Greeks call *acrochordon*, wherein is a development of something hard and uneven under the skin, the latter retaining its natural colour. It is thin towards its extremity, but broad at its base, and of moderate size, rarely exceeding a bean in dimensions. It is seldom solitary, but commonly occurs in clusters, and principally in children. Sometimes these little tumours terminate on a sudden; but at other times they become inflamed, and are removed by suppuration."

"Another kind they called *thymion*—a little wart which projects considerably from the skin, slender at the base, broad, hard, and uneven, and coloured at its summit like the blossom of the thyme, from which peculiarity it derives its name. The thymion splits up easily at the summit, and is raw, and sometimes it bleeds a little; its ordinary size is that of the Egyptian bean, rarely bigger, sometimes extremely small. Sometimes it occurs singly; sometimes there are several, and both in the palms and in the soles of the feet. The worst kind are those which are developed about the organs of generation; and there they bleed more freely than elsewhere."

Myrmecia "is the name given to warts dwarfer and harder than the thymion. Their roots are deeper; they are more painful; they are broader at the base than at the summit; they are less disposed to bleed; and they hardly ever exceed the dimensions of a lupine in size. They are met with in the palms of the hands and in the soles of the feet."

Clavus "is found chiefly in the soles of the feet, and arises commonly from a bruise, but also from other causes; it is sometimes met with in other parts of the body, and, if not otherwise troublesome, is painful in walking.

"Acrochordon and thymium often get well of themselves, and all the more quickly in proportion to their smallness of size; but myrmecia and clavus are rarely cured without treatment."

Of the three kinds of tumour-like growths, which resemble warts, here referred to—namely, acrochordon, thymium, and myrmecia—the term acrochordon would seem to be applied to those pouch-like growths of the integument which are now called "molluscum". They present considerable variety both in size and figure, some being a mere prominence of the skin no larger than a pin's head and sessile, others elongated and pedunculated; and others, again, as Celsus describes, broader at the base than at the summit. In general, they contain nothing but a loose, spongy, and imperfectly developed cellular tissue; but it will be seen that he mentions a hard and uneven body as being present under the skin in these little tumours; and he also alludes to their common appearance in children, in the

form of clusters; and, further, their occasional disappearance under an attack of inflammation and suppuration. These latter characters remind us of the small tumours caused by hypertrophy of the sebiparous glands, and which are distinguished by the name of molluscum simplex. And, as a further illustration of the relation of acrochordon to molluscum, it may be mentioned, that it is no uncommon thing to see a tubercle of molluscum simplex converted by the expulsion of the hypertrophied gland into a mere pendulous bag of integument.

The thymium appears to be nothing more than the fibrous wart so common on the hands; while the myrmecia is a broader, deeper, and less prominent variety of the same wart, occurring in the palms of the hands and soles of the feet. I have seen myrmecia chiefly in the thick cuticle of the heel, where it is extremely painful and troublesome. It may be worth while to remember the recommendation of Celsus to treat it by the application of a boiled fig.

'To be continued.'

Original Communications.

PATHOLOGICAL AND PRACTICAL RESEARCHES ON THE VARIOUS FORMS OF PARALYSIS.

By EDWARD MERYON, M.D., F.R.C.P.

[Continued from page 205.]

PARALYSIS FROM MORBID GROWTHS IN AND ABOUT THE SPINAL CORD.

THESE adventitious products occur under various forms, and give rise to a diversity of symptoms, from which we may calculate upon more assistance in determining the functions of each individual portion of the spinal marrow than from any direct experiments, however carefully they may be conducted.

Of all extraneous growths from which paralysis ensues, the most frequent are tubercle and cancer. Neither, however, has been so often observed in the vertebral canal as in the cavity of the cranium; but when either occurs, the slow process of its formation may enable the cord so far to accommodate itself to exceptional pressure or structural disintegration, that the function of the special part which is the seat of lesion is more clearly manifested by its gradual disturbance than by any abrupt change induced by artificial means. The sudden shock and extension of irritation to surrounding parts, necessarily weaken the force of any inference that may be drawn from the result of an experiment.

Tubercle of the cord occurs more frequently in children than in adults, and its attendant symptoms are those of compression and irritation.

CASE. Philippe Oran, aged 29, was admitted into the Hospital St. Antoine, under Dr. Aran, with paraplegia, rigidity of the inferior extremities, anæsthesia of the legs and thighs, and enuresis. He was insensible to tickling on the soles of the feet; but reflex movements were produced thereby. This patient had practised onanism in his youth, and subsequently committed great excesses in venery. He had also been affected several times with syphilis. Percussion over the spine produced considerable pain over the upper third of the dorsal region. He had paroxysms of shivering and fever, and behind the trochanters bed-sores existed. Notwithstanding that the soles of the feet were insensible to tickling, pricking of the skin over the instep was felt acutely.

On examination of the body thirty-five hours after death, a mass of tubercular matter was found to have

burst out of the vertebral canal, and to occupy a space over the fourth dorsal vertebra; but the greater part of the morbid product was contained in the canal, where it pressed upon the cord, which was flattened and softened to the consistence of cream. The osseous lesion existed in the bodies of the third and fourth dorsal vertebrae. (*Comptes Rendus de la Société de Biologie*, 1856, p. 191.)

The relation of the above case is not so explicit as we might desire; but I think we may reasonably infer that the partial anæsthesia was the consequence of pressure on the posterior columns of the spinal cord which were found flattened and soft. The persistence of reflex phenomena, however, and the sensibility to pricking on the instep, would indicate that the impressions of the afferent nerves continued to be transmitted to the central grey matter of the cord.

An interesting case of paraplegia depending on a tumour in the substance of the cord, is described by Dr. M'Dowel, Professor of Anatomy in the University of Dublin. (*Dublin Quarterly Journal of Medical Science*, November 1861.) The patient, a tin-plate worker, was affected with paraplegia, but regained, in some slight degree, the power of moving the left foot and leg. The foot could be bent and extended, and the leg could be drawn up in bed; the right foot and leg remained utterly powerless. But in the right foot and leg the reflex movements regained well-nigh their normal activity, whilst in the left it was impossible to excite them. Sensibility was equally impaired in both legs.

The difference in the amount of paralysis may be accounted for by the position of the tumour in the right side of the grey substance, where the vesicular portion of the nervous matter possessing the faculty of originating motive power is situated. But how shall we explain the loss of excito-motory phenomena on the left side, unless they depend on the decussating fibres which pass from the anterior cornu on the one side, into the anterior column on the other? The author of the history of the case has accounted for it by the supposition, that reflex motor phenomena are better developed when the influence of the brain is cut off from the spinal cord; but the cases are so numerous in which the reflex phenomena are entirely destroyed when the influence of the brain is entirely cut off, at least after a time, that I am more disposed to regard the disappearance of the phenomena as dependent on a solution of continuity at some point between the afferent and efferent nerves. That volition does exercise a restraining influence there can be no doubt, but the reflex function is not dependent on the abrogation of such influence.

The most unequivocal case that I remember to have read of, as showing that the posterior columns of the cord are not the sole channels for the transmission of the impressions of sensation, but that the grey substance is equally subservient to the function, is related by Ollivier. (*Traité de la Moelle Epinière*, tome ii, p. 779, obs. 111; see also p. 693.) In reflecting on this case, it may be well to consider how far the fibres which pass from the posterior cornua into the lateral white columns, may have been implicated.

The subject of the case had a benumbed left arm, together with paraplegia, the loss of sensation in both legs being complete. A tumour existed on the left side of the back, on a level with the inferior angle of the left scapula; and in the very centre of the spinal cord, between the last dorsal and first lumbar vertebrae, an olivary tubercle was found, occupying the space of the grey matter, but leaving the columns of the cord all round it apparently healthy.

The sensation of numbness in the left arm was probably due to pressure on the cutaneous nerves (the nerves of Wrisberg) which proceed from the upper dorsal nerves, in the neighbourhood of the tumour observed on the left side of the back. The convulsive movements and other symptoms of irritation may be referred to the

morbid action, evidence of which existed on the surface of the dura mater; whilst the loss of sensation and motion was caused by pressure exercised on the vesicular nervous matter and the longitudinal tubular fibres of the grey substance, in which pressure the longitudinal white columns of the cord must have eventually participated.

It has been remarked that in paraplegia, dependent on tumours in the grey substance of the cord, anaesthesia sets in at the very beginning of the affection, and proceeds to a greater degree than the loss of the power of motion. Another remarkable feature in such cases is the exaltation of the reflex function in the parts of the cord below the tumour, probably from the irritation occasioned by the adventitious matter, for a very slight provocation will produce the most violent reflex movements.

All this is in strict accordance with the anatomical structure of the parts; and if more evidence be required to the theory which assigns to the longitudinal nerve-fibres in the grey substance of the spinal cord, the transmission of impressions of sensation and of the mandates of the will, it is beautifully supplied by cases in which the grey substance has been destroyed. An instance of this kind has lately been recorded by Dr. Gull, in *Guy's Hospital Reports*, vol. viii, 3rd series, p. 245. The patient was a tailor, who for some months had been unable to extend the little and ring fingers of the right hand, which felt cold and numb. He had shooting pains through the chest, and a sense of tightness across the upper part of it. The inner three fingers of the left hand next became similarly flexed, but without any numbness. The patient sickened with typhus fever and died. On examination of the body, all the organs were healthy except the spinal cord, in the centre of which a large cavity existed, beginning at the fifth cervical vertebra, enlarging downwards to the seventh, and from thence tapering to the fourth dorsal. The columns themselves were healthy.

It is worthy of observation that there is no notice of any paralysis of the inferior extremities, whence we may infer that none of the longitudinal nerve-fibres in the grey substance extend throughout the entire length of the cord; and in another case, described by Ollivier (vol. ii, p. 691, obs. 93), remarkably analogous to the above, the disorganisation of the grey matter appears to have taken place in a downward direction, the symptoms presenting a corresponding extension.

Portal also relates the case of a servant of the Duc de Crouy, who was seized with numbness of the arms and legs, which subsequently lost all power of motion, and became œdematous. On examination after death, a large quantity of fluid was found extravasated in the ventricles of the brain, and a large cavity was discovered in the centre of the spinal cord, extending down to the third dorsal vertebra.

A somewhat similar case is related by Velpeau, in the *Revue Médicale* for 1826, of a woman, aged 56, who gradually, but rapidly, became affected with complete hemiplegia of the left arm and leg, but without loss of feeling. The left arm became œdematous. Her respiration was quick, her voice weak, and her speech somewhat embarrassed. The pulse became feeble, the breathing stertorous, and in a week she died. In the middle of the cervical region, the grey substance on the right side of the cord was converted into matter resembling pus. An abscess, in fact, existed, three inches long and three lines in diameter. On the left side also, and in the corresponding portion of the cord, the grey substance was found in a state of softening, about an inch in extent.

Upon pathological cases, then, as well as upon anatomical structure and experimental observations (*Course of Lectures on the Physiology and Pathology of the Central Nervous System*. By C. E. Brown-Séquard, M.D., F.R.S. Lecture IV), it would appear that the central

grey substance of the cord, independent of the vesicular matter which it contains, includes nerve-fibres which are directly or indirectly concerned in motion and sensation. But, upon anatomical grounds alone, there is great reason to infer that it is with the excitatory or reflex actions that the grey substance is so concerned; for, as in the lower extremities, the reflex actions are more evident than they are in the upper, so the bulk of the grey substance is much greater in the lumbar region than it is in the cervical; and yet the ordinary sensibility of the legs is less acute than that of the arms. Case XIX would have presented an excellent opportunity of observing how far the reflex function was destroyed by the disorganisation of the central portion of the cord; but, beyond the remark that the contraction of the legs was increased when touched, at the time the patient was admitted into the Bicêtre, the narrative conveys no information on this interesting question. Case XVI is more suggestive, because it is more circumstantially described.

That paralysis may ensue from cancerous formations in and about the spinal cord, too many cases have been recorded to admit of the slightest doubt. Still, cancer in the cord is a very rare form of disease, and, like tubercle, is one of a secondary development, other organs being more obnoxious to such morbid growths. The symptoms, too, resemble, in so many respects, those which present themselves in tubercle of the cord, that the diagnosis is dependent rather on the general diathesis of the patient than on any special signs.

The vertebrae themselves may be the seat of the disease, as shown by Dr. Walshe (*Nature and Treatment of Cancer*) in a case where, with the progress of the cancerous infiltration, the bony tissue of the body of a lumbar vertebra had disappeared, and the adventitious substance, reaching the anterior and posterior limits of the cancellated structure, destroyed the compact tissue also, and protruded posteriorly under the dura mater into the spinal canal, and anteriorly under the anterior ligament. It had subsequently grown in front of the spine in an upward and downward direction, so as to reach the bodies of the vertebra next above, and next below.

A remarkable case, published by M. Velpeau (*Archives Générales de Médecine*, Janvier 1825, tome vii, pages 68-82) in 1825, to illustrate Sir Charles Bell's doctrine, has still its interest as regards the relationship existing between the seat of disease and disturbance of function. In this case, the adventitious matter in the anterior of the cord must have so completely destroyed the healthy structure through which it ramified (a process which connective tissue is specially prone to undergo), that the continuity of the complicated links which have been shown to exist between the nerve-fibres were as effectually severed as if they had been divided by a knife.

But in the process, the convulsive movements and pain in the left arm were doubtless due to the irritation set up in the corresponding side of the spinal cord, and transmitted by the motor and sensitive nerves backward to the arm; and in this stage of the disease hyperæsthesia of the arm existed, just as the irritation caused by a section of the lateral and posterior columns of the spinal cord produces hyperæsthesia (Dr. Brown-Séquard, pp. 19-21); but as the destructive influence of the cancerous infiltration progressed, and the vesicular matter of the grey substance of the cord was destroyed, motion, sensation, and the excitatory actions were destroyed with it. It is probable that the persistent sensibility of the right arm was due to the fifth cervical nerve which sends a branch to the brachial plexus; for, if the least quantity of the central grey matter of the cord had been left, the reflection of irritation from one sensitive nerve to another sensitive nerve would not entirely have ceased, as it did in every nervous branch below the tumour. The extraordinary part of the case was the sud-

den supervention of paraplegia; for, in affections of the spinal cord, where the morbid change is of a chronic nature, the paralytic effects are less abrupt than in injuries or acute disease.

These physiological remarks find a place where some notice should appear in respect of prognosis and treatment; is it necessary, however, to confess that these cases are incurable?

Hydatid cysts have likewise been known to produce fatal paralysis. Five such cases are recorded by Ollivier, and, curiously enough, all occurred in females. In three, the cellular membrane on the external surface of the vertebral column was the primary seat of the parasitic growth, whence it spread in the track of the nerves, through the intervertebral foramen, to the external surface of the dura mater. One of these cases, which fell under the observation of M. Chaussier, is so interesting that I will venture to transcribe it.

An embroiderer, aged 22, after various premonitory symptoms, at the seventh month of her pregnancy, became suddenly paralysed in both lower extremities. Micturition and defecation also became more and more difficult, and less frequent. At the full period, parturition was accomplished without pain, the cries of the child and the rapid diminution of bulk being the only evidence by which the woman was assured of the fact.

All went on well till the fourth day, when an attack of fever came on, and from day to day assumed an aggravated form. On the tenth day she died.

On examination, an hydatid cyst, which had formed on the right side of the bodies of the third and fourth dorsal vertebrae, was found to have insinuated itself into the vertebral canal through the fourth intervertebral foramen.

Here, again, we may associate each and every symptom, in the order of its appearance, with the probable development of the acephalo-cystic formation. The first sensation of numbness in the right arm was doubtless attributable to pressure on the nerves of Wrisberg, or cutaneous nerves of the arm (the anterior branches of the second and third dorsal nerves), as were the subsequent disturbances of the right eye, and of the vascular system to pressure and irritation of the right sympathetic nerve. I have already had occasion to allude to the influence of the sympathetic on the motions of the eye, and its vaso-motor power is universally admitted. M. Colin, however, has shown that its sensibility is more effectively aroused by pressure than by any other means (*Comptes Rendus*, Mai 13, 1861, p. 969); and Dr. Augustus Waller has pointed out the fact that pressure on the trunk of the nerve gives rise to embarrassed respiration and disturbance of the heart's action (*Proceedings of the Royal Society for 1861*, No. 44, p. 382), symptoms which occurred in the course of the case in question.

It will be observed that up to the seventh month of pregnancy no symptom existed which might not have been caused by pressure on nervous trunks outside the vertebral canal; but the supervention of paraplegia attested the existence of a lesion of the spinal cord itself; and the question is, of what special part? Was it compression of the external white columns or of the internal grey substance to which the paralyzing influence was due? The gradual penetration and intrusion of the cyst seems to favour the idea that it was the former; for, as the pressure was at no time so great as to produce disorganization of the cord, it is reasonable to presume that the longitudinal columns suffered more than the grey substance.

Another interesting phenomenon was the painless, yet effective contraction of the uterus; and herein some light is thrown by the observations of M. Brachet, which render it probable that absolute destruction of the spinal cord is necessary for the perfect inertia of the uterus (*Fonctions du Système Nerveux Ganglionnaire*); hence it would appear that, in paraplegia from simple compres-

sion of the cord, the sensibility of the uterus may be suspended or destroyed, whilst its contractile energy remains undisturbed. And this contractility appears to be of a reflex character, for it may be excited by the application of cold to the surface of the abdomen, by the introduction of the hand, or even by placing the child at the breast.

Whilst, therefore, I am disposed to think that, from pressure on the white columns of the cord, the nervous communication between the brain and uterus was cut off, it appears that an independent reflex action was preserved in the comparatively uninjured portion of the cord, and that to this latter operation the expulsion of the fœtus and the subsequent startings of the legs were due.

[To be continued.]

Transactions of Branches.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

CASE OF PHTHISIS MASKED IN ITS LAST STAGE BY PRECORDIAL DISTRESS.

By FREDERICK J. BROWN, M.D., Rochester.

[Read September 25th, 1863.]

GEORGE G., aged 45½ years, residing at Chatham, died on September 9th, 1863. The death-certificate was worded "Phthisis"—6 months.

I first saw him on August 12th. He was greatly emaciated, suffering from hectic fever, and perspiring profusely. He complained of pain and a sense of obstruction at the epigastrium, midway between the xiphoid cartilage and the umbilicus. The bowels resisted medicine for four or five days together, then operated once or twice, and again became obstinately confined. There was no complaint of cough. There was no abdominal tumour. His health had declined for two years; but he continued at his work as an artisan until thirteen weeks before his death. He was thought to be suffering under abdominal cancer.

A *post mortem* examination was made twenty-five hours and a half after death. There was extreme emaciation. The stomach and intestines were healthy. The liver was fatty, and presented a nutmeg appearance. The spleen was large and firm. The pancreas was wasted. The kidneys were natural. The right suprarenal capsule was natural; the left one was not examined, through an accidental omission.

Examination of the thorax showed excessive wasting of the heart. This organ did not appear to be more than one-third of its normal size, and it presented a whitish aspect. Its structure was not lacerable. The right lung was strongly adherent at its apex. There was a ragged vomica occupying the upper sixth of the lung. Yellow tubercle was disseminated through the lung, crude in some parts, softened in others. The left lung presented the most extraordinary appearance that I have ever seen. It was wholly adherent, but split up longitudinally into two slips with ragged ulcerated surfaces.

REMARKS. The remarks that I have to make on this case are but few. In the first place, the man was never properly examined during life. The stethoscope was not used at all. This case shows the necessity of examining the lungs in all wasting diseases; and it also shows the danger of jumping at conclusions. This man must have expectorated purulent matter whilst he was engaged at his work; but, being of a quiet disposition, he had maintained a reserve on this subject sufficient to mislead his wife and friends. I would also remark that cancer of the abdominal organs is an unsafe diagnosis in the

absence of a tumour. Having confessed errors of omission and commission, I bring the case forward as a remarkable one, inasmuch as the lung-disease was completely masked by the solar plexus neuralgia. I judge that the neuralgia was due to the wasting of the heart. Two medical practitioners that saw the case, independently of one another, overlooked the lung-disease.

P.S.—Since writing this case, I have ascertained that the pulmonary disease was recognised by a surgeon previously to the last three months of the patient's life. There were cough and abundant expectoration during that surgeon's attendance.

British Medical Journal.

SATURDAY, OCTOBER 24TH, 1863.

THE PROFESSION AND THE PUBLIC.

NOTHING can more strongly show the untrue position which our profession holds in the estimation of the public at large than the extreme ignorance which even the educated public betrays on all matters which touch the practice of our art. However highly, as individuals, members of our profession may rank in general estimation, it is a fact that, as a profession, we are, socially speaking, grossly maligned and grossly misunderstood, or utterly ignored; and this, not on isolated occasions, but almost on all public occasions. The public press, as a rule, takes infinite pleasure in girding at us; and the more influential the press, the more marked the girding. Or, again, the proceedings of our body are ignored as being matter of no kind of public interest. Fulllest reports are given of the opening of a ragged school at Sloughton-on-the-Moor, but not a word of the meeting of the *British Medical Association* either in London or at Bristol. This latter fact was markedly referred to by the *Social Science Review*.

"The first of the great social and scientific congresses of the present year, the annual meeting of the British Medical Association, has passed off with singular success. The meeting was held at Clifton, Bristol, under the presidency of one of the most accomplished of English physicians, Dr. Symonds. The proceedings of the congress on this occasion were of such immense public interest and importance, that on their own merits we should have been disposed to report them in all their details, as we have done in the forthcoming pages; but we feel another reason for supplying so free a record; we wish to introduce more distinctly to the notice of the general public the scientific progress and labours of that great section of the community to whom are confided responsibilities the most onerous, duties the most sacred. The time has arrived, we think, when the public ought to give a little more careful attention to the Æsculapian fraternity; ought to inquire, for its own sake, more closely into the progress of medical art; ought to question, if not critically, earnestly, the advances that are being made by the professed healers of corporeal evils; and, instead of constantly carping at the art, should look at it as something that is to be understood, and as something which might advance rapidly, if the cold hand of an ignorant and boastful tyranny were not ever upon it.

"We may take the late medical congress at Bristol as a fair type of the figure and thought of medicine as it exists at this moment; we have had it there presented to us voluntarily and openly. The public has not gone out of its way to inquire after the doctors, but the doctors have united to show themselves and their science to the public. They have met, argued, and discussed in broad daylight. The press has had free entrance, and scholars of all kinds have found no denial. It is, then, carelessness, and little less than insolent inattention to its own interest, not less than to the profession, for the intelligent section of the community to stand still outside the pale, making no inquiry as to what has been done, and as to what is promised to be done. Yet how remarkable the apathy! If the bankers of England had held a conference at Bristol, or the stock-brokers, or the insurance companies, or the politicians, what attention they would have secured; how would the London papers have teemed with the sayings and doings of the men who held the great meetings of bankers or other craft! As it was, some three hundred men, all scholars, met to discuss questions relating to the very existency on which all crafts depend: met to carry on debates, upon the result of which the practical meeting of death in endless disguises may largely turn: and not one metropolitan paper of an extra-professional kind, except our own, cares to give those proceedings so much as a column of notice."

Surely all this is very deplorable. And is there no remedy for it? Are we ever to occupy an ignored social position? And why do we hold such a position? Is the fault our own? or are we to look outside the profession for a remedy to the evil? On this score, referring to the above extract from the *Social Science Review*, we cannot forbear noticing the truly unprofessional spirit exercised by the *Lancet* on the occasion of our Bristol meeting. The *Lancet* considered that the proceedings of that meeting were utterly unworthy of notice in its pages! A journal, which every week devotes columns to matters of extra-professional interest, has no space for recording even a summary of the doings of the annual meeting of this Association, notwithstanding the notorious fact that matters of the highest importance both to the scientific and social position of our profession were there brought forward! Last year the *Lancet* attempted to smother our Association by its attentions; its whole weekly number, or something like it, having been devoted to the recording of our annual proceedings. Having failed in that notable attempt, it now tries it on in the other line. It calculates to send the Association into oblivion by coldness and neglect. How does that journal square the proceeding with all its fine verbal indignation of last year, of its being the true recorder of the earliest information of matters medical?

We now add an extract from the *Daily Telegraph*, which surpasses in ignorance, and, from its language, we may fairly add brutality, anything which has lately appeared in the way of injuring the profession. Speaking of the late conviction of a herbalist for manslaughter, the journal says:

"It is customary in these horrible cases, especially with the medical press, to make an onset upon the body of 'herbalists', and point the moral so as to pierce them

wholesale. We do not choose to do this. The study of the efforts of vegetable medicaments is as lawful as any other, when it is honestly and cautiously pursued; nor can few or many letters of the alphabet after a man's name make all the difference between a quack and a man of science. There is this to be said, too, for an honest herbalist, that he plies his trade under instant penalties for failure, while the graduates of medicine can kill, and do kill, with an almost legal impunity. The public chooses at its own risk between the accredited and the unaccredited doctor; and we must sadly confess that we have not so much faith in the kind of science available to a poor man's purse, as to lay it down that the people who sell him a harmless purge or a lotion cheap are to be exterminated."

If there be any truth in the saying that people are estimated in no small degree according to the value they put on themselves, we fear that we have much to blame ourselves for in this matter. We fear that we do not ourselves sufficiently exalt ourselves in the eyes of the public; that we suffer "the slings and arrows of outrageous fortune" in much too mild a fashion. Surely there must be something wrong in the body at large, when we find the leading public press rarely ever referring to us, except when it can abuse or Molièrise us. See how we now stand, for example, with the army authorities! See the contumely with which our army and navy medical brethren are treated! Happily, one proper and the best remedy for that evil is being applied, by the absence of applicants for the vacancies. We believe that it is an accepted fact, that the head of the Horse Guards has a profound contempt for our profession, and loses no opportunity of expressing it. And where is the head of the Army Medical Department, who shows us the finger of professional authority exerted on behalf of his profession? We have no hesitation in saying that, in our opinion, the head of that department ought to have remonstrated or even resigned office before he sanctioned the late order for "branding", whereby it is made compulsory on the army surgeon to supply the instruments for branding, and to superintend the branding; and that the branding shall be done by a hospital sergeant. What is all this, but converting the true office of the doctor, his ministry of mercy, into the business of the common hangman? What respect can the public at large have for us, when they see us degraded to the performance of such duties as these? And what, again, is the use to the profession of an Army Medical Director, if he allow such things to pass into practice without remonstrance?

Again, it is all very well for men in high office to say that our profession needs none of the adventitious circumstances of rank to maintain its influence; but the statement, so often repeated, is patent nonsense. Why should the surgeon in the army be the only man in the army to whom the artificial accidents of rank are of no importance? The colonel and every subordinate rank and file must stick to the smallest minutiae of his rights and of his rank,

to sustain his due influence and position; but the doctor needs none of these things! The statement made the other day by Colonel Wilbraham, at the opening of the Netley School session, is one from which we totally dissent. It is contrary to fact, contrary to reason, and contrary to experience. He told the medical gentlemen, "that he begged those who were about to enter the army to remember that it was not rank which gave a man status in his regiment, but his own qualities and capabilities." This is, no doubt, a good Horse Guards doctrine, and one which that body would gladly inculcate upon the army medical officer; but it is a manifest and patent fallacy, and a fallacy which, we trust, the Horse Guards are now having effectually pressed home upon them. If the accidents of rank are good for one man, they are equally good for another; if they aid in sustaining the dignity and credit of the colonel, they equally aid in maintaining the dignity of the surgeon. What Colonel Wilbraham ought to have told the young army surgeon is this: "Your rank in the army will demand from you a display of certain qualities and capabilities; and the higher your rank is in the army, the greater will be your opportunity for displaying and practising those good qualities and capabilities. Of course, a man must possess these good qualities to maintain his status; but he must also possess rank in order to practise them most effectually."

In conclusion, we cannot help often asking ourselves this question, and we now repeat it for the consideration of the profession: Do those members of our profession who hold high and official appointments, and who come into contact, and therefore represent the profession with the people in power, always boldly and properly maintain the interests and dignity of our calling? Or, do they not often show themselves wanting in proper moral courage; and so tacitly pass over and accept injuries inflicted on our profession?

We would also recommend to the consideration of those who may perchance benefit by them, the following remarks addressed to the American government, from a late number of the *American Medical Times*. We would ask whether they are or are not in any way now applicable to our Horse Guards:—

"Our own government seems less disposed than any of its contemporaries to listen to the voice of reason and experience. The medical department of its army remains where the present war found it, entirely subordinate to other authorities. Repeatedly during the present war, has it become painfully evident that the Medical Bureau must be more or less completely emancipated from the jurisdiction of state departments before it can fully accomplish its humane mission of health-preserving and life-saving in the army. Higher officers of government, having no just appreciation of the duties of the medical service, have controlled the department so as to destroy the efficiency of branches of its organisation. To complete the work of demoralisation, a person was

placed at the head of the bureau without a solitary qualification to recommend him. These are but examples illustrating the manner in which the central office of the medical department is hampered, and its efforts nullified, by powers which, from necessity, cannot appreciate its requirements.

"If we extend our inquiry to the field, we find the medical department labouring under similar embarrassments. It has neither rank nor power adequate to its importance. It is dependent upon other branches of the service for the means of discharging its duties, and must await their convenience. Its stores cannot be moved, its hospitals cannot be built; in a word, it can do nothing without the aid of the quartermaster. Innumerable are the instances in which the medical service has been completely foiled for want of independent action.

"If the teachings of history and experience are of any value in directing human affairs, it would seem that they ought to lead civilised nations to place the very highest estimate upon the military medical service. It should not only have free play to fulfil its obvious mission of life-saving upon the battle-field, but it should still more importantly be allowed to dictate, or even to command, the conditions on which it discharges its higher obligations of health-preserving, in the camp or in the field. And yet, modern nations, with rare exceptions, present the singular anomaly of consigning the most powerful element of their military organisations to an inferior and subordinate position, where it has neither the right nor the power to exercise fully and freely its humane vocation."

SUPPLY OF ARMY MEDICAL OFFICERS.

It is a well-known fact, that the supply of medical candidates for army honours is far below the demand; and that the recent admissions to army honours are not of that high character which the examiners would like to see intrusted with the care of that valuable article, the soldier's health. We can only say that, despite of the lament of Inspectors-General, and of other expectants of better things to come, we sincerely rejoice at the fact; and for this plain reason, that it is the only way through which the dull official senses can be penetrated. These gentlemen in high places, who think so well of the service, must surely have seen enough of the world to know that no abuse of that service, by the press or by medical teachers, would prevent a rush of applicants, if the service were really what it ought to be. Good openings elsewhere for medical men are not so numerous as all that.

It is quite time that the army authorities should be taught, once for all, to do justice, and to keep their promises, and for this reason, we can only advise the young medical man to avoid the service until he can ensure for himself on entering it that fair and proper treatment, which he does not now meet with. We are sorry to be obliged to add, that from all we can learn from this business, the worst friends which the assistant-surgeon has are those members of his own profession who sit up aloft as authorities, or at least as nominal authorities. It

seems to us, that these gentlemen care rather to please the supercilious fancies of the great luminaries in whose warmth they bask, than to deal out justice and protect the status of the profession to which they have the honour to belong.

It is calculated that about a hundred and fifty new assistant-surgeons are required every year to make up for the deaths and retirements of the service; consequently, if candidates refrain from attending to the voice of these charmers until such times as justice has been fairly administered and secured to the army surgeon, we may be very sure that *malgré*, if not *gré*, his Royal Highness will not be long in issuing another royal warrant, or, at all events, in promising faithfully to fulfil the terms of the royal warrant, which has been so shamelessly disregarded. We say shamelessly, because the warrant was promulgated during the Crimean war, when red tape was grievously sick, and medical aid was hard to be had. It surely reflects no great credit on red tape, that it should thus, in resemblance to a well-known disreputable personage, now that it is no longer sick, cease to act becomingly.

Facts like the following speak volumes, and no special pleading of officials can explain away their significance; namely, that the army medical service is not at present a desirable service. At the last army medical examination, forty-five candidates presented themselves to compete for ninety-five vacancies. Of these forty-five, thirty-three alone passed muster. And how? Successful candidates are ranked in three classes, according to merit, as shown by their examination. Well, of these thirty-three successful ones, none were placed in the first class; but we find that the majority of them came into the third class, and only a minority into the second class. As regards nationality, we may add, that of the thirty-three, twenty-six were Irishmen, five Scotchmen, and two Englishmen.

A few more lessons of this kind brought thus forcibly home to the attention of supreme red tapeism, and we may be sure that our profession will conquer for itself its due position in the army medical service.

FOUL AIR AND FEVERS.

At the late meeting of the Social Science Association at Edinburgh, the most important discussion which took place in the Public Health Department was upon the subject of drainage of towns, and the effects of bad sewerage on health. The inevitable conclusion which the general public must have gathered from the discussion was this, that if the drainage and the sewerage of our towns were perfect, fevers would be things unknown. But then followed, unfortunately, instead of preceding the discussion,

Dr. Christison's address. In this address we have, *per contra*, the highest authority telling us that he has never been able to trace fever to bad drainage. Foul air may predispose the body to take fever, but it is not the cause of the fever; *that* must be sought for elsewhere. It is, indeed, much to be regretted, that this view of the case was not more prominently brought under the notice of the men of municipal authority in Edinburgh. The natural results flowing from an exclusively sewerage side of the question would be to lead non-professional persons to neglect those other important causes influencing health which are so remarkably in action in Edinburgh; viz., bad ventilation of and overcrowding of dwellings.

In reference to the subject of the injurious effects of the emanations from drains upon public health, we would venture to make one suggestion, which seems to us to be matter worthy of very serious consideration, respecting the sewerage operations in London. Our sanitary doctors tell us that cesspools are chiefly pernicious in consequence of the decomposition within them of animal and vegetable matters, and the elimination from them of poisonous gases, etc.; and it is mainly on these grounds that the removal of cesspools has been urgently demanded. Now, if this be really the case, we cannot but ask what is to become of the immense amount of poisonous gases, etc., which, as it seems to us, must inevitably be eliminated within our gigantic London sewers. When we reflect upon the enormous amount of sewage matters which has to enter these sewers, the great distances—the many miles—which the matter will in many instances have to travel, and the very slight inclination of some of the gradients of the main sewers, it appears to us evident that a very large proportion of the sewage matter must undergo decomposition within the sewers, just as it underwent decomposition within the cesspools. So that, in fact (if such be really the case), our sewers will become one gigantic sub-London cesspool. As a matter of course, the foul vapours so eliminated must be set free from the sewers; and must, therefore, be set free into the air of the city of London, as the sewers must always be in such a state as to allow men to traverse them without danger. How this difficulty is to be got over we know not. But this we do know: if the products of decomposition of the contents of cesspools be really as dangerous to health as it is usually supposed they are, there is clearly strong *à priori* grounds for fearing lest this new and splendid system of draining London may be productive of or seriously increasing the amount of the very diseases of which it was supposed to be the especial preventive remedy. The point is one which, we venture to think, deserves the serious consideration of sanitary men.

THE WEEK.

It has been decided that the amalgamation between the home and the Indian medical services, which has been so long talked of and so long hoped for, is not to come off; and it is generally understood that for this conclusion the profession is mainly indebted to the Director-General, to whose paternal care the medical men of the army are already under such deep obligations.

WE recommend the following extract from the *American Medical Times* to the consideration of the Medical Council:—

"The English Medical Act, which compels every person practising medicine and surgery to be qualified and registered, does not, it seems, prevent quacks from this country obtaining a foothold in the profession. Many of these graduates from chartered medical colleges exhibit their diplomas, are registered, and commence practice. The profession of England should understand that our state legislatures charter colleges of every complexion, and the graduates of these institutions are, therefore, legally qualified. *The title of M.D. in this country has no significance whatever.*" (The italics are ours.)

M. TROUSSEAU has astonished the French medical men by demanding permission to retire from his clinical chair. "This professor, still so fresh in mind and body, so zealous, and devoted to the instruction of students, whose lectures are so largely attended, is, we are told, fatigued, and requires rest. His pupils, however, see things differently. A petition has been got up by them, and already covered with signatures, calling upon the minister not to accept his resignation."

A SUBSCRIPTION is in progress in Ireland for presenting Dr. Mackesy with a testimonial, on account of his great and generous labours in behalf of the Poor-law medical officers.

THE President of the Academy of Sciences—M. Velpeau—in presenting the *Atlas d'Ophthalmoscopie* of M. Liebrich, remarked: "That without accepting as absolutely proved all that has been said on this subject by MM. Graefe, Donders, Cusco, Follin, and others, I do not hesitate in declaring that they have deserved well of science, and that ophthalmoscopy promises to do for the eye what the stethoscope has done for the chest."

From the report of M. Rouse, it appears that the water of the Dead Sea contains 206 grammes of saline matter in a litre. A cubic metre of the water contains more than three kilogrammes of bromide of potassium. Here, then, we have a grand source for the supply of a new remedy, if importers of the water can only be found. We say new; but we are told by Pliny that the rich ones of ancient Rome had

water brought from the Lake Asphattites for the use of their baths.

The number of charitable establishments in the Department of the Seine in 1863 is 144, of which 17 are supported by the state, 29 administered by the Direction of Public Assistance, and 98 supported by private charity. The establishments supported by the state are the following: Les Quinze-Vingts; Charenton, Jeunes-Aveugles, and Sourds-Muets; the asylums of Vincennes and Vésinet; the orphan asylum of La Société du Prince-Impérial; La Maison Eugène; Napoléon; La Caisse des Offrandes Nationales; Des Invalides; Val-de-Grâce; Gros-Caillon; Saint-Martin; and Vincennes.

Dr. Vigouroux states that every well-marked act, either of inspiration or of expiration, is accompanied with a dilatation of the pupil. He explains the fact, by supposing that whenever a centrifugal nerve-current passes into the spinal marrow as high as the two first dorsal pair of nerves, a part of the current is directed on to the pupillary filaments, which arise from these nerve-trunks, and so cause contractions of the radiated fibres of the iris.

M. Hofer has endeavoured to upset one of the so-called proofs of the very ancient existence of man; viz., the lake-habitations in Switzerland. These lake-constructions, he says, are the work of beavers. "1. Beavers once abounded in the Helvetian lakes. 2. These constructions are identical with those of beavers. 3. They are very near the borders of the lakes. 4. No human bones are found amongst them; but bones of the beaver are there found. The presence of stone or iron weapons merely shows that men in those days hunted the beavers."

A Lyons quack, having demanded 800 francs for curing a lady of a pretended mortal disease, when remonstrated with for his charge, indignantly replied, "Madam, to obtain my specific, are you aware that I had to distil amber?" The reproach was, of course, unanswerable.

The *Gazetta Medica Italiana*, in reply to reports that the minister La Farina was destroyed by repeated venesections, declares that not one single venesection was practised on him.

M. Pereire, the Israelite millionaire, is, *L'Union Médicale* says, the descendant of a Portuguese physician remarkable for his titles and his discoveries: "Jacob Rodrigues Pereire, pensioner and interpreter of the King, member of the Royal Society of London, and one of the leading minds of the eighteenth century, and who was the founder of the Deaf and Dumb Institution in France."

M. Guipon, in a memoir, tells the Academy of Sciences of the effects of consanguinity, syphilis, and alcoholism, as observed in the same family. The conclusions arrived at by him are:—That consanguinity exercises a depressing influence on the vital

force, and particularly on the power of reproduction; and that it injuriously affects the hearing, the speech, and the sight; that, combined with syphilis or alcoholism, it may produce paralysis, etc.; that the intelligence may be also affected; that one function only seems to be increased, and that is the genital—the one whose final object, procreation, is most compromised.

M. Blache, we read, presented a memoir on diseases of the eye to the Academy of Medicine in the name of Prince Zaachen, Polish doctor of medicine.

The Academical Senate of Pesth has refused to confirm the appointment of Dr. Hasenfeld as Instructor in Balneology, on account of his being a Jew. "It will be a sad business for Hungary," writes the *Wien. Med. Woch.*, "if such principles as these are accepted, which have been long rejected by all civilised nations."

French publishers are about to reproduce the two grand and famous dictionaries of medicine—one known under the name of *Dictionnaire en 15 Volumes*, and the other as the *Dictionnaire en 30 Volumes*; the first comes out under the superintendence of Dr. Jaccoud, and the last under that of Drs. Raige-Delorme and Dechambre.

Association Intelligence.

SHROPSHIRE SCIENTIFIC BRANCH.

THE next meeting will be held at the George Hotel, Shrewsbury, on Tuesday, October 27, at 2.30 P.M. Dinner will be ordered at 5 P.M.

SAMUEL WOOD, *Hon. Secretary.*

Shrewsbury, October 14, 1863.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE next meeting will be held at the Town Hall, at Maidstone, on Friday, October 30th, at 2 P.M.

Dinner will be provided at the Mitre Inn at 5 o'clock. Tickets, 5s., exclusive of wine.

FREDERICK J. BROWN, M.D., *Hon. Sec.*

Rochester, October 13th, 1863.

MIDLAND BRANCH: QUARTERLY MEETING.

THE quarterly meeting of this Branch was held in the Board-room, Infirmary, Derby, on Oct. 15; Dr. GOODE, President, in the chair.

After some desultory remarks from different members, Dr. Goode read a very interesting paper on a Case of Abscess of Small Intestine opening into the Bladder.

After some discussion on this paper, it was proposed, and carried unanimously, that the spring meeting of this Branch should be held in the northern division of the county, to afford country members a better opportunity of attending.

Mr. Dolman then showed to the members a little boy, aged 2½ years, who was the subject of an immense Spina Bifida.

After transacting the usual routine business, the meeting broke up.

Reports of Societies.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

Meeting at Edinburgh, October 1863.

DEPARTMENT OF PUBLIC HEALTH.

R. CHRISTISON, M.D., F.R.S.E., President, in the Chair.

How People may Live and not Die in India. By Miss FLORENCE NIGHTINGALE. The paper was read by Dr. Scoresby-Jackson. The writer commenced by stating that her paper dealt with one of the most important social questions of the day, viz., how the British race was to hold possession of India, and to bestow upon its vast population the benefit of her own civilisation. The Royal commission on the sanitary state of the army in India had shown that unless the health of the British army in India could be improved, and the enormous death-rate reduced, this country would never be able to hold India with a British army. The average death-rate of the troops serving in India was no less than 69 per 1000 *per annum*. That death-rate, moreover, did not include those who were invalided, and who died on the voyage to England, or soon after their return; but taking it simply as it was, and assuming the strength of the British army at 73,000, it proved that such an army would lose on an average of years an entire brigade of 5037 men *per annum*; sometimes it would be half that number, but in other years it would lose two such brigades. It was said that the death-rates of the war year being the highest (not from wounds), peace, and not sanitary measures, was the remedy. As well might it be said that because the British army had nearly perished before Sebastopol not from wounds, but from want of every supply of civilised life, peace, and not the supply of the wants of civilised life, was the remedy. The Royal commission had shewn that, if the death-rates were reduced to even 20 per 1000 *per annum* (double that of home stations since these stations had improved) to India would be saved a tax equal to £1000 sterling. Referring next to the question how this great death-rate in India had arisen, Miss Nightingale was afraid the reply must be that British civilisation was insular and local, and that it took small account of how the world goes on out of its small island. The ordinary system of dieting British soldiers in India was more adapted to a cold climate than that of out-of-door farm servants doing work in England. More than this, the occasional dram at home was commuted by regulation in India into a permission to drink two drams—i.e. six ounces of rum spirit every day. And, at the same time, the men had little or nothing to do. The craving for spirit induced by this regulation-habit of tipping led to increase of drunkenness; so that, with over-eating, over-drinking, total idleness, and vice springing directly from these, the British soldier in India had small chance indeed of coping with the climate—so-called. The regulation allowance of raw spirits which a man might obtain at the canteen was no less than eighteen gallons and a half *per annum*, which was, Miss Nightingale believed, three times the amount per individual which had raised Scotland, in the estimation of economists, to the rank of being the most spirit-consuming nation in Europe. Of late years malt liquor had been partly substituted for spirits. So much for intemperance; but not to this and its kindred vice alone, or to this mainly, was to be laid the soldier's mortality in India, as had been falsely supposed. The diseases from which the soldier mainly suffered there were miasmatic. They were foul-air diseases and foul-water diseases—fevers, dysenteries, and so on.

Intemperance might cause liver disease, and put the man into a state of health which prevented him from resisting miasmatic causes. There was no drainage either in town or country. There was not a single station drained. If such a state of things existed at home we should know that we have fevers, cholera, and epidemics to expect. As regarded water, there was certainly not a single barrack in India which was supplied, in one sense of the term, at all. There were neither water-pipes nor drain-pipes. Water was to be had either from tanks into which all the filth of the neighbouring surface was washed by the rains, or from shallow wells dug in unwholesome or doubtful soil. So simple a piece of mechanism as a pump was unknown. Water was drawn in skins, carried in skins on the backs of men or bullocks, and poured into a sort of vessel in the barracks for use. The quantity of water was utterly insufficient for health; and as to the quality, the less said about that the better. The construction of barracks where men had to pass their whole period of service was another illustration of how completely home civilisation was reversed in India. As soon as the soldier came to India he was put into a room with 100, or 300, and in one case, with as many as 600 men. To take another illustration. Our home British population was about the most active in the world. But as soon as the same men went to India they were shut up all day in their hot close barrack-rooms, where they also ate and slept. They were not allowed to take exercise; all their meals were eaten in the hottest part of the day, and served to them by native servants; and they lay in their beds idle, and partly sleeping, till sunset. "Unrefreshing day sleep" was, indeed, alleged as one of the causes for the soldier's ill-health. The Indian social state of the British soldier was not only the reverse of the social state of the soldier at home, and of the class from which he was taken, but there was a great exaggeration in the wrong direction, and people were surprised that British soldiers died in India—and they laid the whole blame on the climate. Miss Nightingale proceeded to refer to the results of the inquiry of the Royal commission as showing that there was not a shadow of proof that India was created to be the grave of the British race. The evidence, on the contrary, showed that all the climate required was that men should adapt their social habits and customs to it. The recommendations made by the Royal commission for improving the health of the British army in India amounted to this: You have in India such a climate; if you wish to keep your health in it be moderate in eating and drinking, eat very little animal food; let your diet be chiefly farinaceous and vegetable. Use beer or light wine, but sparingly; drink coffee or tea; clothe yourself lightly to suit the climate, wearing thin flannel always next the skin; take plenty of exercise, and use prudence and common sense as to the times of it. So far for personal habits. What follows pertained to government: Be particularly careful to have a plentiful supply of pure water laid on for every purpose; drain all dwellings; have no cess-pits; attend rigidly to cleansing, not only surface-cleansing; never crowd large numbers into the same room; build separate barrack-rooms instead of large barracks; place these so that the air plays freely round them; raise them above the ground, with a current of air beneath; never build in a wet hollow, nor on a sludgy river bank, which would be avoided even at home. But if we would make India about as healthy as England, only somewhat hotter, let us have improved agriculture and agricultural drainage. If all these improvements were carried out, the normal death-rate of the British soldier would be not 60 per 1000, but 10 per 1000, say the commissioners. Miss Nightingale then referred to the cause of the prevalence of epidemic diseases among the natives of India. The worst condition of the most neglected district at home, multiplied many times over, was, to say the least of it, the normal condition of

every city and town in India. Not one city or town was drained. Domestic filth round people's houses beggared description. Water-supply was from wells or tanks in ground saturated with filth. Domestic conveniences were wanting. The air in and for some distance around native towns was as foul as sewer-air, there being no sanitary administration and no sanitary police. There was not a town which did not want water-supply, draining, paving, cleansing, healthy plans for arranging and constructing buildings, together with agricultural drainage and improved cultivation all round. These things the people could not do for themselves. But the Indian government could do them. Three health departments (one for each of the presidencies) had been recommended by the Royal commission, together with a home commission to help those departments in bringing the appliances of home civilisation in India. The work was urgent. Every day it was left undone added its quota of inefficiency to the British army, and its thousands of deaths to the native population. Danger was common to European and to native. Many of the best men this country ever had had fallen victims to the same causes of disease which have decimated the population of Hindostan. The real, the main point—the great discovery of the Royal commission was this: Look to the state of your stations first, then look to the hills for help. The stations and cities were in a condition which, in the finest temperate climate in Europe would be—have been—the cause of half the population being swept off by disease. And, on the other hand, no climate in the world—certainly not that of India—could kill us if we did not kill ourselves by our neglect. The question was no less a one than this: How to create a Public Health Department for India—how to bring a higher civilisation into India? What a work, what a noble task for an Indian government. No “inglorious period of our dominion” that, but a most glorious one!

Mr. RAWLISON thought that if similar measures were adopted in India to those which had been adopted elsewhere with regard to the army, there was no doubt that they might expect the results predicted by Miss Nightingale. They remembered the fearful mortality which occurred in the army which left our shores for the Crimea—a mortality which had no parallel in our history, which even exceeded that of the Walcheren expedition. That mortality was attributed to the climate and certain other things, to the want of roads, to excessive trench duty, to great exposure to the weather, etc., nevertheless, by the exertions made in the camp the mortality in the Crimean army during the last eighteen months of the campaign was reduced to a less rate than that army had ever enjoyed in its barracks at home.

Dr. STEVENSON MACADAM alluded to the great evil of the large dose of food referred to by Miss Nightingale. It was a larger ration than that given to soldiers in this country, although in India, as in all hot climates, you actually required, for the proper sustenance of the body, less food than you would do in this country, or in any temperate or cold region. Food was like fuel, and was consumed to keep up the animal heat. In winter more food was required than in summer, and in the same way less food was needed in a hot climate than in a cold one.

The Rev. Mr. MILLER, chaplain of Edinburgh Castle, expressed his opinion that soldiers were not in any way worse than civilians occupying the same position in society, and that the high rate of mortality arose from variations in climate, exposure to night-work, and similar circumstances. The soldiers themselves possessed feelings as fine as those existing amongst their equals in any other profession.

Admiral SAUMAREZ related his experience in the West Indies as commander of a vessel on an unhealthy station, and expressed his firm conviction that religion and total abstinence had a beneficial influence upon men both in

the army and navy. He also entertained the same opinion with respect to marriage, though he could not but regret the great temptations to which the wives of soldiers and sailors were exposed during the absence of their husbands on service abroad. He had often thought it would be well if villages could be founded solely for the occupancy of these women, where they would be under the care of the clergyman and doctor, and free from the temptations of seaports and garrison towns.

Correspondence.

IRIDECTOMY.

LETTER FROM JAMES SYME, Esq.

SIR,—As you ask my opinion of iridectomy, I have no hesitation in saying, that it has always seemed to me an entire delusion accepted for the cure of blindness, on the same principle which leads drowning men to catch at straws. Glaucoma has been regarded as so hopeless a disease, that it was peculiarly well suited for the proposal of an operation which promised merely to afford some chance of relief. Such being its modest profession, the destructive inflammation, lenticular opacity, and collapse of the eyeball, which too frequently result from opening the cornea and cutting out a portion of the iris, were not held to counterbalance the benefit claimed by patients so fortunate as to escape these dangers. But this alleged benefit, from what has come under my observation, does not appear to be at all different from that which every one labouring under incurable deafness may believe for a time he has received from the use of remedial means, whatever they may have been. The truth is, that any man who has paid money, and suffered pain, does not like to confess that his object in doing so has not been accomplished; while his attention and imagination being at the same time excited, he is apt to regard the feeblest glimmer of light, or the faintest perception of sound, as a symptom of improvement. Iridectomy will, therefore, I trust, soon disappear, not only from surgical practice, but from surgical language.

I am, etc.,

JAMES SYME.

2, Rutland Street, Edinburgh, Oct. 17, 1863.

LETTER FROM JOHN C. WORDSWORTH, Esq.

SIR,—May I ask the favour of your inserting a few remarks on the letters of your anonymous correspondent and of Mr. Hunt, that appeared in the JOURNAL of the 17th instant?

Allow me to premise, that in writing my letter of Oct. 10th, I desired simply to record my own conviction that iridectomy was not falling into disuse in England as a remedy for glaucoma; but was more practised daily, and applied to the relief of conditions for which it was not till recently employed.

I did not aim at establishing the principle of the operation for the relief of glaucoma; nor was I ambitious of adding anything to the excellent observations of Von Graefe on the applicability of the operation; but rather desired to express my own opinion of its value as a remedy.

Can it be, then, that your anonymous correspondent has yet to learn where it is indicated? Does he, as “An Eye Surgeon”, ask “the principle on which iridectomy is undertaken”? This is, indeed, a novelty.

I will not trespass on your space by answering these inquiries; but will only state that both have been answered long before iridectomy was introduced into England as a remedy for glaucoma. But if he has still to ascertain these *principia* of iridectomy, when may we hope for his mature observations on its value?

Again, we are informed by him, that "iridectomy means cutting off a piece of the iris, just as the operation is done for the making of an artificial pupil." And Mr. Hunt writes that "iridectomy is nothing more than the old operation for artificial pupil by removal of a portion of the iris." I must, with all deference to my known and unknown critics, deny their assertion; and insist that iridectomy so performed would not be the remedy introduced and practised by Graefe for glaucoma. He, and many others, have long known that the operation so practised does not suffice for the cure of glaucoma; the conditions would not be thereby fulfilled.

Was I, then, inapposite in stating that it was likely that iridectomy would be discredited by those who do not attempt to perform it properly? What would have become of the operation of ligaturing the artery for the cure of aneurism, had the principles been so neglected?

No greater service could be done to ophthalmic surgery than your correspondent might confer, by publicly recording the cases of improvement or recovery from glaucoma to which he refers. Allow me, then, to solicit this benefit to science from him. Placed in juxtaposition with iridectomy, can anything more satisfactory be desired than a fair statement of the history of these cases? For my part, I will undertake to sustain the comparison by cases treated by iridectomy. I am, etc.,

J. C. WORDSWORTH,

Surgeon to the Royal London Ophthalmic Hospital.

50, Queen Anne Street, Oct. 19, 1863.

PERSECUTION OF MEDICAL MEN.

SIR,—The London practitioner is at present free from one of the grievances to which his professional brother in the smaller parliamentary boroughs is liable. I allude to the risk of eviction from his house, and occasionally to the loss of practice, in case he has exercised his privilege of voting according to the dictates of his conscience, when his opinions do not coincide in all respects with those of his landlord. Mr. J. P. Wilding, M.R.C.S. and L.A.C., of Montgomery, has recently been made an example of, by receiving notice to quit the land he holds under Earl Powis (Clive).

These instances are not uncommon. A few years ago, a leading practitioner in one of the neighbouring towns, in Shropshire, underwent the same course of treatment, or rather, I should say, his poor beast of burden did; for the agent, not having it in his power to evict the medical man from his home, was obliged to content himself by taking away the pasture field from the doctor's horse. This mark of displeasure on the part of the territorial magnate was sufficient to induce others to follow their leader, by abstaining from employing him, and gradually led to the ruin of his practice. Such examples may be considered by some as wholesome warnings for medical men not to interfere in affairs of state; by others, as an intimidation against the exercise of an undoubted right. Be this as it may, it is desirable it should be generally known. I am, etc.,

SALOPIA.

October 12, 1863.

The following extract from the *Shrewsbury Chronicle* indicates the nature of the injury inflicted on Mr. Wilding this land of liberty of conscience:—

"An Argument in Favour of the Ballot. Those of our readers who have been in the habit of speaking of Lord Powis as being too honourable and too high-minded, etc., to descend to anything mean and petty, will be grieved to learn that Mr. Thomas Newell, the agent to the Earl of Powis, has given notice to quit their premises to all those who voted for the liberal candidate at the last election. Is this done with the knowledge and sanction of the Earl of Powis?"

A LIBEL ON THE MEDICAL STUDENT.

SIR,—You have at all times shown us that you are ready to uphold the honour and dignity of our profession. Have the goodness to peruse the book which I send to you by the same post which will carry this letter. I never read anything more calculated to give the public a wrong and humiliating idea of the medical student of the present day. There are some of the most barefaced lies and shameful libels in it that I have ever set eyes on. I have scored, in red pencil, the parts which I consider to be untrue and libellous; and I do not hesitate to say that, during the three years of my pupilage at King's College, I never saw or heard of such ungentlemanly, nay brutal conduct, as the author describes. Perhaps in the last century he might have met with one or two examples bearing some slight resemblance to the distorted image of the degraded beast which he portrays; but I will never believe that such things can exist in the present day, when the whole education and natural refinement of the candidates for Æsculapian honours tend to make them gentlemen in every sense of the word. We often hear of prosecutions for libel, whether on paper or by word of mouth: cannot the production of such a scandalous one as this be stopped in some way? I am, etc., M. M. H.

[The remarks of the writer are not at all too strong for the book on the medical student referred to, and we can well imagine his indignation on first reading it. The picture, however, of the student in the book is so grossly drawn as to destroy all its bad effect. The only regrettable part of the thing is, that it should bear as its author the title of a man who was himself once a member of the profession. EDITOR.]

THE SPECULUM AND ITS USES (?)

SIR,—Can you, or any of our London brethren, inform me if it is usual, when examining the os uteri with a speculum, to request a female relative of the patient to examine also, and to explain to her what is to be seen?

The facts of the case are briefly these. I attend a lady, unmarried and about thirty years old, for nine or ten weeks, without discovering any special symptoms of uterine disease in the case, beyond the fact that she is subject to hysteria, and is of a sensitive nervous temperament. As soon as my patient is strong enough, I send her to the seaside, in charge of an unmarried sister of about the same age; and for two or three weeks the change seems to have been of service. Afterwards, further treatment being needed, a physician is called in, who appears to be in great repute, especially in uterine diseases; and he is convinced, on first seeing the patient, that hers is a case of uterine disease, and tells her he cannot undertake her treatment unless he is allowed to make the necessary examination. This is agreed to; and, on the speculum being used, the patient is told she has serious ulceration of the womb, which has been going on some time, and would in a few months have produced mortification, if not attended to; and the sister, who is present, is requested to see for herself, in order to confirm the opinion thus given, which she does, and, of course, writes home a detailed report of the result, though she does not appear to have seen more than a bright scarlet patch, of the size of a sixpence or shilling. Since then, the speculum has been used every other day for applying caustics, etc.; but I do not know whether the sister has again joined in the examination.

I do not wish to enter further into the case now, but merely repeat the question with which I began my letter: Is this ever done by the leading practitioners in town? or is it confined to the provinces? I hope it may be true of neither. To my mind it is simply disgusting.

I inclose my card, and am, etc.,

A GENERAL PRACTITIONER AND LICENT. MID. R.C.S.

Medical News.

ROYAL COLLEGE OF PHYSICIANS. At a general meeting of the Fellows, held on Monday, October 19th, 1863, Smith, Edward, M.D.Lond., 18, Queen Anne Street, was duly admitted a Fellow of the College.

At the same meeting, the following gentlemen, previously extra-Licentiates, were admitted members:—

Hamilton, Mark, 7, Arundel Street
Jones, John, Springfield, Upper Clapton

At this meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Colbeck, Thomas William, Romsey, Hants
Emanuel, Leonard, M.D.St. Andrews, 6, Stanley Gardens, Nottingham Hill
Harris, George Smith Delavil, Haxey, Bawtry
Hindle, Frederick Thomas, Askerne, near Doncaster
Jones, Hermann Johnston, M.D.Heidelberg, Springfield, Upper Clapton
Keene, Frederick Joseph, Holbrook, Ipswich
Macgowan, Alexander Thorburn, New Brompton, Kent
Moore, Harry Gage, Lynton, Hants
Smith, Richard Wagstaff, Handsworth, Birmingham

The following gentlemen were reported to have passed the first part of the Professional Examination for the Licence of the College:—

Barracough, Robert W. S., Guy's Hospital
Freeman, Henry W., Middlesex Hospital
Hilliard, Henry C., Guy's Hospital
Hiron, William Nathaniel, Sydenham College, Birmingham
Perks, Charles, Queen's College, Birmingham
Wilmot, Alfred Edward, Guy's Hospital

At a former meeting of the College, held on the 30th ultimo,

Stovell, Matthew, M.D.Aberdeen. Bombay Army
was admitted a Fellow of the College.

ROYAL COLLEGE OF SURGEONS. The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on October 15th.

Dunsterville, George E., Cape of Good Hope; diploma of membership dated August 13, 1841
Humphreys, Thomas B., Trinity Sq., Tower Hill; Oct. 16, 1840
Taylor, George, Derby; May 6, 1842

At the same meeting of the Council—

Martin, Arthur, of Liverpool, a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, his diploma bearing date May 8th, 1860, was admitted an *ad eundem* member of the College.

UNIVERSITY OF CAMBRIDGE. At a Congregation holden on October 15th, the undermentioned degrees were conferred:—

Doctor in Medicine.

Robinson, Charles Alexander Lockhart, Caius College

Bachelors of Medicine.

Burnaby, Thomas Frederick, Trinity Hall
Close, Henry Gaskell, Emmanuel College
King, Joshua, Trinity Hall
Langton, Thomas Augustus, Caius College
Oliver, George William, Christ's College
Phillips, Richard Augustus Long, Christ's College
Smith, William, Emmanuel College

APOTHECARIES' HALL. On October 15th, the following Licentiates were admitted:—

Costine, David Dunlop, Liverpool
Dunlop, Robert, Drumhead, Dumbartonshire
Jenkins, John Edwin, Stow-on-the-Wold
Kemphorne, Henry Law, Wedmore, Somersetshire
Wintle, Richard Prior, Earl's Court Terrace, Kensington

At the same Court, the following passed the first examination:—

Barracough, Robert Wooding Sutton, Guy's Hospital
Thomas, Robert Wrentmore, St. George's Hospital

APPOINTMENTS.

ANDERSON, Mark F., I.R.C.P. Ed., elected Honorary Medical Officer to the Coventry and Warwickshire Hospital.

EARLE, James L., M.D., appointed Surgeon-Accoucheur to the Queen's Hospital, Birmingham.

FAGGE, Charles H., M.D., appointed Physician to the Royal Infirmary for Diseases of Women and Children.

FERGUSON, William, Esq., F.R.S., elected Professor of Anatomy and Surgery in the Royal College of Surgeons of England.

*GOODWIN, John W., M.D., appointed an Examiner of the Candidates for Medical Degrees in the University of Cambridge, for the ensuing year.

HARLEY, John, M.D., appointed Assistant-Physician to King's College Hospital.

PEACOCK, Albert L., Esq., appointed Resident Medical Officer to the St. Marylebone General Dispensary.

TAYLOR, James, Esq., appointed Surgeon to the Ballieborough and Grouseball Constabulary, co. Cavan.

THOMPSON, Thomas, Esq., appointed House-Surgeon to the Queen's Hospital, Birmingham.

WINTERBOTHAM, Washington L., M.B., appointed Surgeon to the Bridgewater Infirmary.

POOR-LAW MEDICAL SERVICE.

BECK, James T., Esq., to the Union House and District No 6 of the Chesterton Union, Cambridgeshire.

CLEGG, William J., M.D.Univ. Edin., to the Brandwood District of the Rochdale Union.

DOWNING, Samuel D., L.R.C.P.Lond., to the New Workhouse, Birkenhead.

HOPKINS, George H., Esq., to the Stone District and the Workhouse of the Stone Union, Staffordshire.

KITE, William J., Esq., to the South-East District of the parish of West Bromwich.

PRITCHETT, Henry, Esq., to the Rastrick District of the Halifax Union.

SIMPSON, John H., Esq., to the District of Marksbury, in the Keynsham Union.

TRIMMER, Henry B., M.D., to the Gamlingay District of the Caxton and Arrington Union, Cambridgeshire.

ARMY.

BARCLAY, Surgeon A., M.D., 43rd Foot, to be Staff-Surgeon, *vice* A. F. Turner.

BREBNER, Staff-Assistant-Surgeon A., M.B., to be Assistant-Surgeon 55th Foot.

DUDLEY, Staff-Assistant-Surgeon W. E., to be Assistant-Surgeon 76th Foot.

REID, Surg. T. B., 92nd Foot, to be Staff-Surg., *vice* A. C. Ross, M.D.

ROSS, Staff-Surgeon A. C., M.D., to be Surgeon 92nd Foot, *vice* T. B. Reid.

TURNER, Staff-Surgeon A. F., to be Surgeon 43rd Foot, *vice* A. Barclay, M.D.

To be Staff-Assistant-Surgeon:—

HAMMOND, G., M.D.

ROYAL NAVY.

DUNCAN, George, M.D., Surgeon (additional), to the *Narcissus*.

McCLINTON, William F., B.A., M.B., Surgeon (additional), to the *Egmont*.

ROLSTON, Peter W., Esq., Surgeon, to the *Falcon*.

WALSH, John, M.D., Acting Assistant-Surgeon (additional), to the *Sutlej*.

WAUGH, James, Esq., Assistant-Surgeon, to the *Falcon*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

ACTON, W., Esq., to be Assistant-Surgeon 1st Staffordshire A.V.

DEATHS.

CASE. On October 15th, at Croydon, Mary Cheshyre, youngest daughter of the late John Case, Esq., Surgeon, of Runcorn.

DIXON. On October 20th, aged 80, Elizabeth, wife of John Dixon, M.D., of Prospect Row, Bermondsey.

MAWSON. On October 19th, aged 81, Mary Ann, widow of the late George Mawson, Esq., Surgeon, of East Ilsley, Berks.

*OLIVE, George, Esq., of Northampton, aged 59, on October 16.

ROGER, Alphonse René, M.D., at the Maison Imperiale de Charenton, France, aged 48, on October 10.

SMITH. On October 16th, at Burbage, Wilts, aged 1 year, Charles J. P., son of C. Swaby Smith, Esq.

SIR HENRY HOLLAND, physician to the Queen of England, is on a visit to Washington. (*American Med. Times.*)

NEW WORK BY DR. WYNTER. A new volume has just been published by Dr. Wynter, entitled *Subtle Brains and Lissom Fingers*.

ADDENBROOKE'S HOSPITAL. The governors of Addenbrooke's Hospital, Cambridge, have determined to adopt Mr. D. Wyatt's plan for the new building, modified to suit the wishes of the medical officers.

THE NEW REGISTER. We beg to remind our readers that the General Council has given notice, that the Register for 1864 will contain only those names which appear in the General Register on the 1st of January next.

UNIVERSITY OF BONN. A report has reached us from Germany, that Dr. Hofmann has accepted the appointment of Professor of Chemistry at Bonn, where they are about to erect the most splendid laboratory in Europe, at a cost of 150,000 thalers. (*Chemical News.*)

A CORONER FOR BRIDLINGTON. There is a vacancy for the coronership at Bridlington, and a medical man is in the field for the same. Let us sincerely hope that our medical brethren will on this occasion resemble the united bundle of sticks.

MUNIFICENT GIFT. Mr. Mackenzie, of Fawley Court, has transmitted to the British Orphan Asylum, Slough, £14,000 in redemption of his promise to indemnify them to the extent of what may be termed the "capital" expenditure upon that institution.

THE NUMBER OF MEDICAL STUDENTS now pursuing their studies at our metropolitan schools, is rather under the number registered in October last, and considerably under those registered in 1860, when the number reached 1230.

OPHTHALMIA IN THE DOVER UNION. The ophthalmia which has prevailed amongst the children in the Dover Union for some time past has been checked, the sanitary measures recommended by Mr. John Woolcott, surgeon to the Kent County Ophthalmic Hospital, having been rigorously enforced.

TO PHYSICIANS AND SURGEONS. The following advertisement adorns the pages of *The Times*:—"Medical Editorship. The proprietors of *Who to Consult*, 7s. 6d., are desirous of securing the services of four gentlemen, viz., two M.D.'s and physicians and two F.R.C.S.'s, to form a council to conduct the new edition of that popular work *Who to Consult*. Apply, by letter only, to Junius, care of Messrs. Aylott and Son, 8, Paternoster-row, London."

DEATH OF A RUSSIAN DOCTOR. Dr. Alexis Georghesky, chief surgeon of his Imperial Russian Majesty's screw steam frigate *Oleg*, 51, now in Plymouth Sound, died on the 14th inst., on board, rather suddenly. He joined at Cronstadt September 15, and has been suffering lately from an affection in the throat. For the last three days Dr. Georghesky received unremitting attention from the surgeon of Her Majesty's screw steam corvette *Pelorus*. Mr. Ludovich Ignatievich, the assistant-surgeon, is now the only medical officer in charge of the crew, 685 men.

QUEEN'S UNIVERSITY IN IRELAND. The annual meeting of the Queen's University for conferring degrees and the distribution of prizes took place on the 13th instant, in Dublin Castle, in presence of the Lord Lieutenant, the Lord Chancellor of Ireland, etc. The Lord Chancellor addressed the assembly on the progress of the Queen's Colleges. He announced a remarkable increase in the numbers of the graduates and students. The numbers for 1862 were 141, the largest heretofore, while the examinations of this academic year have been attended by 177 students. Of these 26 have been found qualified for the degree of Doctor of Medicine, and 42 have passed the first University examination for that degree.

RECRUITS. The army returns for the year 1861 show that in that year 12,191 recruits were examined, and 4,600 of them were pronounced unfit for service. A much smaller number of men being required, greater strictness in the selection was observed. As in the preceding year, the proportion of rejections was highest among the natives of Scotland and Ireland, and lowest among the Welsh. The highest proportion of rejections was among the manufacturing artisans, and the lowest among the shopmen and clerks. Small or malformed chest gave rise to a much larger number of rejections than any other cause. Upwards of two-fifths of the re-

jections were for causes indicative of ill-health or feeble constitution, and one-fifth for defects which would have affected the marching power of the men. The returns show, as in the previous year, a considerable excess in the amount of diseases of the eyes and eyelids in Ireland.

ROMAN EXILES AND A NEW PUFF. Dr. Maggiorani has left, too happy in being permitted to do so, *exile* being the condition of his passport. Surgeon Feliciani is in the agonies of the same course, as is also Signor Porretti, who holds in Chemistry the reputation corresponding to that of the other two in physic and surgery. The poor Romans are thus deprived of their best resources in a department not over rich in talent or science. One would think that the government was in league with certain doctors of the right sort, who, having emigrated from Naples, cover the walls of this ancient city with puffs of original or translated works, "sold only at the residence of the authors."

DEATH OF NEARLY A WHOLE FAMILY FROM EATING TOADSTOOLS. On September 12th, John Deute, a boy of 12, went into the woods near Coniston, to seek nuts. He came upon a large bed of what he supposed to be mushrooms; gathered a quantity, and on reaching home his father selected twenty or thirty to be stewed for supper; Mr. Deute did not fancy the dish, but Mrs. Deute, Amelia, and John partook of them. During the night Mr. Deute became poorly, and on Sunday was worse, and the doctor was called in. Amelia attended church in the morning, and though suffering from uncomfortable sensations, went to the chapel in the evening. Mrs. Deute died on Tuesday, Amelia on Thursday, and John on Friday, and on the following afternoon, at four o'clock, they were laid, side by side, in one grave, in Coniston churchyard.

ROYAL COLLEGE OF SURGEONS. From an examination of the annual list of Fellows, Members, Licentiates in Midwifery, and of persons who have received the certificate of qualification in dental surgery, just published by the Council of the College of Surgeons, it appears that the total number of Fellows amounts to 1296, of which number 286 passed the examinations for the honour. The Members of the College are about 14,000 strong. The Licentiates in Midwifery which last year numbered 840, have only increased their number by an addition of 38; owing, no doubt, to the Diploma of the College of Physicians, which includes this branch of the profession, possessing greater attractions. There are now 192 persons upon whom the Dental Certificate has been conferred.

DONATIONS AND BEQUESTS. A lady, unknown, has given £500 to University College Hospital, and the same sum to the Middlesex Hospital. The Samaritan Free Hospital for Women and Children has also received £250 from an anonymous benefactor. Other charitable institutions have been benefited, probably from the same generous hand. The Duke of Marlborough has forwarded 100 Guineas to the Radcliffe Infirmary, at Oxford, being the proceeds of fees from visitors to Blenheim Palace and Gardens. Richard Owen, Esq., of Wakefield Lodge, Northamptonshire, has bequeathed £500 to the London Fever Hospital, and to the Brompton Consumption Hospital, £1000.

UNIVERSITY OF CAMBRIDGE. Medicine. The examinations for medical degrees in the ensuing term will commence on Monday, November 23rd, at 9 a.m., in the Arts' Schools. Gentlemen, candidates for the degree of M.B., intending to offer themselves for examination, are required to signify the same to the Regius Professor of Physic on or before November 9th, specifying whether they offer themselves for the first or second examination, and to send at the same time their certificates. A fee of £3:3 is paid to the professor by each student when his name is sent in for the first examination for the M.B.

degree. The classical subjects for the ensuing examination for the M.B. degree are: Hippocrates, the 5th, 6th, 7th, and 8th sections of the *Aphorisms*; Aretæus, *On the Causes and Symptoms of Chronic Diseases*, the 8th to the 14th chapters inclusive of the first book; Celsus, the 3rd and 4th books. Candidates will be required to satisfy the examiners in the portions selected from each of the above authors.

ROYAL COLLEGE OF SURGEONS. From the annual return of the receipts and expenditure of the Royal College of Surgeons in the year from Midsummer-day 1862, to Midsummer-day 1863, and only just published, it appears that the former amounted to £12,410:1, against £14,135:13 received in the previous year, showing a reduction of £1725:12 in the income of the College. The disbursements amounted to £12,418:17:1 against £14,200:7:6 of the year 1862, and an excess of expenditure over receipts of £8:16:1. The chief sources of income arose from the primary and pass examinations for the diploma of member which amounted to £9323:5. Rent from chambers adjoining the College (and which appears to have been a very good investment of collegiate funds) produced £678:11:6. Certificates of qualification in Dental Surgery gave £514:10. The Midwifery License amounted to £191:2. The Fellowship amounted to £409:10. Of the Disbursements the principal amounting to £7585:5, appear to be for fees to courts, boards, committees, diploma stamps, list of members, coal, salaries, wages, etc., all lumped under one head. The museum department absorbed £2324:18:3 for catalogues, specimens, spirit, bottles, salaries, wages, etc. The balance at the Bankers at Midsummer-day last, amounted to £3081:1:4.

VERDICT OF MANSLAUGHTER AGAINST A HERBALIST. At Yeovil, last week, an inquest was held on Elizabeth Fox; and after a long inquiry, the jury returned a verdict of "Manslaughter" against a well-known herb doctor, Robert Slade Colmer. The unfortunate girl who was only 20 years of age, had remained at Colmer's house for a week, at the end of which time she had a miscarriage, and died on Sunday morning, October 4th. At the opening of the inquiry on Tuesday, the 6th inst., the wife and daughter were examined, and they stated that deceased had come to the house, complaining that she had something the matter with her liver, that she took no medicine while there, and that she died on the night after the miscarriage. The inquiry was adjourned for a post-mortem examination, which showed that the womb had been ruptured by some violent application, and death must have been almost instantaneous. Colmer, who is a well-known herb doctor, has been living at Yeovil for about twenty years. His son, Dr. Colmer, a licentiate of the Royal College of Physicians at Edinburgh, lives with him, and, although he attended the young woman at her death, he stated at the inquest that he rarely interferes with his father's patients, although he has patients of his own in the town. The prisoner, a man about 50, is said to have known something of "astrology," and was consulted on matters touching the recovery of stolen sheep, pigs, etc., but it is understood that he has refused to have anything to do with such matters for the past twelve months. However, some extraordinary revelations came out at the inquest, which prove that Colmer has not altogether divested himself of a faith in the superstitious. He states that he took the child with the after-birth, etc., and burnt them, in accordance with the idea that such a proceeding would relieve the pains of the young girl. The deceased was a domestic employed at a rectory at Rington, Somerset, and her parents live in Dorsetshire. She left the rectory with the avowed intention of going home. The evidence of several surgeons distinctly proved that death was caused either by an improper interference of the hand, or an unskilful use of instruments.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—OCTOBER 17, 1863.

[From the Registrar-General's Report.]

		Births.	Deaths.
During week.....	{ Boys..1001 Girls. 938 }	1939	1205
Average of corresponding weeks 1853-62		1843	1149
Barometer:			
Highest (Sat.) 29.860; lowest (Tu.) 29.198; mean, 29.494.			
Thermometer:			
Highest in sun—extremes (Fri.) 94.0 degs.; (Th.) 64.0 degs.			
In shade—highest (Wed.) 63.7 degs.; lowest (Sat.) 46.9 degs.			
Mean—53.8 degrees; difference from mean of 43 yrs.+3.6 degs.			
Range—during week, 16.8 degrees; mean daily, 11.9 degrees.			
Mean humidity of air (saturation=100), 84.			
Mean direction of wind, S.E. & S.W.—Rain in inches, 0.29.			

TO CORRESPONDENTS.

. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

S. P.—The following is the list of names erased from the Register by order of the Council:—John Edward Protheroe, entry fraudulently made; Richard Organ, infamous conduct; John Burton, entry fraudulently made; John Broatch, obtaining admission by a false declaration; John Kearney, infamous conduct; Daniel de la Cherois Gourley, convicted of misdemeanour; Hugh Brown, diploma obtained by false statement of age; Daniel Dougal, diploma obtained by false statement of age; David Griffith Jones, convicted of misdemeanour; Evan Thomas, convicted of perjury; Robert Wrixon, convicted of forgery; Samuel La'Mert, for infamous conduct; Robert Jacob Jordan, name removed from the list of members of the Royal College of Surgeons of England.

PHYSICIANS' FEES.—SIR: Will you be kind enough to say in your ensuing number of the JOURNAL, what is the customary consultation fee paid to a London physician or surgeon? I have repeatedly accompanied patients to those gentlemen, who have always accepted one guinea. Recently, a patient, with quite an ordinary case, was charged two guineas, to his and my surprise.

I am, etc., A MEMBER OF THE ASSOCIATION.

[The actual fees taken by London physicians and surgeons are things (as Lord Dundreary would say) which no man can explain. We believe that they come under a very extended scale, varying from five shillings up to two guineas a visit. The recognised fee for a visit of a patient at a physician or a surgeon's house is one guinea; and two guineas for a consultation. The ordinary fee for a visit at the patient's house is the same; but there have been physicians who have refused to visit patients at their own houses for less than two guineas. And, of course, all physicians make an extra charge beyond a certain radius from their own house.]

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Dr. CHRISTISON; THE HONORARY SECRETARIES OF THE HARVEIAN SOCIETY: Mr. J. C. WORDSWORTH; Mr. HENRY LEE; Dr. W. O. SANKEY; Mr. ERASMUS WILSON; A YORKSHIRE MEMBER; JEW: Mr. DOLMAN; L.S.A., etc.; Mr. G. CARDWELL; Mr. J. PENNEFATHER; Mr. M. B. HILL; Mr. STONE; Mr. WILLIAM COPNEY; and A STAFF-SURGEON.

Lectures

ON

ORTHOPÆDIC SURGERY.

BY
BERNARD E. BRODHURST, F.R.C.S.,

OF ST. GEORGE'S HOSPITAL, AND THE ROYAL
ORTHOPÆDIC HOSPITAL, ETC.

LECTURE I.

ON CURVATURES OF THE SPINE.

CURVATURES of the spine are anterior (*lordosis*), posterior (*cyphosis*), and lateral (*scoliosis*).

These terms, lordosis, cyphosis, and scoliosis, have been applied to curvatures of the spine ever since the time of Hippocrates. They were not used then, however, exactly in the same sense as they are now understood ; for the term scoliosis, which now signifies lateral curvature of the spine, was then frequently applied indiscriminately to every form of spinal distortion. Before we proceed to consider these pathological conditions, however, it may be advantageous to glance at the normal—physiological—curves of the spinal column, as they occur in the *fœtus in utero*, after birth, and in the adult ; and to

consider very briefly their formation and their purposes.

Normal or Physiological Antero-posterior Spinal Curves.

The spine in the *fœtus* is bent forwards, being moulded in its curve by the walls of the uterus ; the head is bent upon the breast and the thighs upon the abdomen.

In the infant, the spine remains almost straight when in the horizontal position ; the sacrum is then but little curved, and the obliquity of the pelvis is greater than in the adult.

The normal—antero-posterior—curves are developed slowly, and depend in great measure on muscular action, and on the erect position which man is destined to assume. At birth they do not exist. And in the young child, they are not constant, but disappear in the horizontal position. Gradually, however, they become more or less permanent ; and before growth is complete, the spine has lost much of its flexibility, and has gained, as a constant condition, lumbar, dorsal, and cervical curves.

On examining carefully the spinal column in the erect position, it will be seen that the base of the sacrum is so placed that it is immediately above a straight line which may be supposed to pass through

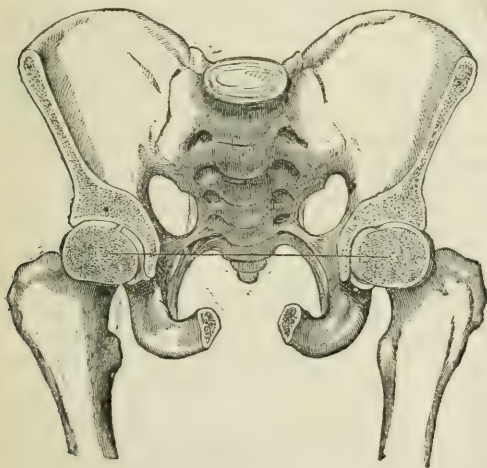


Fig. 1.

the heads of the thigh-bones, and which has been called the interfemoral line. (See Fig. 1.) This fact was demonstrated by MM. Weber. Nægele also proved the position of the pelvis. Before he demonstrated the fact, it was believed that the pelvis was more horizontal than is absolutely the case. The pelvis is so oblique that the anterior wall (pubes) presents upwards and backwards, and the posterior wall (sacrum and coccyx) downwards and forwards, as is shown in Fig. 2. Such, then,



Fig. 2.

being the positions of the pelvis and of the sacro-lumbar articulation, how is equilibrium maintained?

Equilibrium is the result of certain forces acting in front of, and behind, the spinal column ; namely, the action of the flexors and extensors of the trunk, neck, and head, and the resistance of the ligaments that hold together the several vertebræ which form the spinal column. In the erect posture, these structures combine to poise the head and the ver-

tebral column in the vertical line on the heads of the thigh-bones. (See Fig. 3.)

In considering this question, the weight of the viscera should not be forgotten. In this sketch, however, the chief points only will be considered.

The position of the sacro-vertebral articulation being, then, such as has been described, it becomes necessary for the maintenance of equilibrium, and that the head may be poised (its centre of gravity corresponding with a vertical line which coincides with the axis of the trunk, and which shall fall on the inter-femoral line), *first, that the lumbar vertebrae shall be curved backwards.* This lumbar curve is the result of muscular action in the endeavour to maintain the erect position. It is the reverse of the sacral curve; and it springs from the sacro-lumbar articulation upwards and backwards, the sacral curve commencing at the same articulation, and presenting downwards and forwards. But the lumbar curve having been formed, it is essential that a second curve—the dorsal—shall restore the direction of the spine towards the perpendicular line; and, for the same reason, the cervical curve is formed in the same direction as the lumbar curve. These several portions of the spine differ somewhat in flexibility, the lumbar and dorsal portions possessing this quality very nearly in equal degrees; but in the cervical region the flexibility is three times that of either of the former. A structure is thus composed of segments of various circles, strong, yet elastic, fitted to bear the superincumbent weight, and to resist the effects of shock.

It would perhaps be impossible to imagine a structure more perfectly adapted to its purposes than the spinal column, formed as it is of separate pieces, severally united by discs of fibro-cartilage, bound together by numerous and strong ligaments, and surrounded and acted on by powerful muscles. Its flexibility and its curved form are points of even more importance than its great strength: these adapt the spine specially to its purposes.

Not to enter too minutely into questions of physiology, I would only allude to the opinions of some eminent physiologists, as the Webers, Cruveilhier, Bishop, and others, who have stated their belief that the normal curves of the spine depend on varying thicknesses of the bodies of the vertebrae and of the intervertebral substances. It is true, as the Webers have shown, that in the dorsal region of the spine especially, differences exist on the anterior and the posterior surfaces of the vertebrae; namely, that on their anterior surfaces—in the concavity of the curve—they are somewhat thinner than posteriorly; while in the lumbar and cervical regions, the fibro-cartilages are especially affected, being compressed posteriorly. It has been already shown, however, that the physiological—antero-posterior—curves do not exist at birth; and that, when first observed, they are not permanent, but are lost in the horizontal posture. It should also be remembered that these inequalities in the vertebrae and the interver-

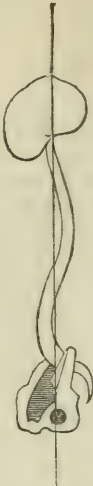


Fig. 3.

tebral substances do not exist at birth, nor are they found until the spinal curves commence to be permanent. Such being the case, it follows as a necessary consequence, that these differences in the anterior and posterior surfaces of the bodies of the vertebrae, and especially of the fibro-cartilages, are due to the antero-posterior curves—are due, in fact, to the erect position and to the pressure from above downwards consequent on that position.

The effect of pressure on the intervertebral cartilages is shown by the loss of height which is sustained at the end of the day. Thus it is well known that a man of middle stature, who has remained in the erect posture during the whole day, will have lost nearly one inch in height; and that this will only be regained after he has been in the recumbent position for six or eight hours. It is only logical, therefore, to conclude that these varying thicknesses of the bodies of the vertebrae and of the intervertebral substances are produced by pressure as a result of the erect position; and that they would never be developed, any more than the antero-posterior curves themselves, in the horizontal position.

Thus it may be stated that the antero-posterior curves of the spinal column result from the erect position, and from muscular action to maintain equilibrium; and that unequal pressure occasions thinning of the bodies of the vertebrae and of the intervertebral substances in the concavities of the curves. This view will be confirmed by the consideration of pathological curves.

OUR LONDON MILK. Mr. Cosmo Logie, of the Horse Guards, says, that he has lately visited several London dairies. He finds that all new cows are inoculated, and in this way: a slit is made in the tail, and in the slit a bit of pleuro-pneumonic lung is inserted, and tied up. Suppuration follows; and he has seen milking going on beneath the pus-dripping tail, and asserts that pus often flies off from the wagging tail into the neighbouring milking-pail.

AGE OF THE PEOPLE. England (including Wales) was found to have in it, when the census was taken in April 1861, 593,721 babes and sucklings under one year old; 2,107,061 infants of one year but under five years old; 2,344,066 children of 5 to 10; 1,059,889 boys and 1,045,287 girls 10 to 15; 957,930 youths and 974,712 maidens 15 to 20 (though, to speak by the card, we should distinguish 29,719 as thus early wed); 1,594,497 young men and 1,804,160 young women 20 to 30; 2,947,534 men and 3,149,320 women of middle-age, 30 to 60; and 641,282 old men, and 793,515 old women, 60 to 80; and 47,260 very aged men, and 65,990 very aged women, above 80. The young population under 20 amounted in number to 9,082,666; the population 20 years old and upwards were 10,983,558. In the 10 years 1851-1861 the young population under 20 increased by 971,654, and the population 20 years old and upwards by 1,166,961. The rate of increase, though very nearly the same in both classes, was slightly higher among the young than among the older population; not only the absolute number of births, but the ratio of births to population, is increasing. The population of England divides into two equal parts in respect to age at a little over 22; and it is nearly 29 times the annual number of births. These statements do not include our soldiers, sailors, and merchant seamen abroad, so that the number of men in the middle period of life is to a certain extent unduly depressed. The very aged have not in the last ten years increased in near the same proportion as the general population.

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

ON THE DERMO-PATHOLOGY OF CELSUS.

By ERASMUS WILSON, F.R.S.

[Concluded from p. 449.]

FROM the consideration of warts and corns, the transition seems sudden to pustulæ, scabies, impetigo, and papulæ, which follow immediately after. We are, however, still in the chapter which treats "de interioribus ulceribus, quæ, aliqua corporum parte corrupta, nascuntur"; and the order pursued by Celsus would seem to be, to take the apparently most important diseases first, and gradually to descend to the more insignificant. Thus, from carbunculus and carcinoma, we descend to verrucæ and clavus; and now, beginning with pustulæ, we make our way downwards through scabies, impetigo, and papulæ, to the alphas, melas, and leuce of vitiligo, where the chapter ends.

"*Pustulæ* occur chiefly in the spring, and present many varieties. Some occasion a roughness or unevenness of the whole or a part of the body, such as that produced by the sting of the nettle, or by excessive perspiration. These the Greeks term *exanthemata*. They are sometimes red, and sometimes differ little in colour from the surrounding skin."

Phlyctenæ. "Sometimes a number spring up like pimples (vari), sometimes larger:—pustules which are livid, or pale, or black, or otherwise altered in colour; beneath these is a humour; and when they are ruptured, they look like ulcerations. These are the pustules which the Greeks term 'phluctanai'. They are caused either by cold or heat, or by the action of drugs."

Phlyzacion "is a pustule which is somewhat harder, whitish and acuminated, yielding a moisture when squeezed."

"Pustules sometimes give rise to small ulcers which are more or less dry or moist; sometimes they are accompanied with itching, and sometimes with inflammation and pain; sometimes also they give exit to pus or sanies, or a mixture of both. This occurs chiefly in youth, and less frequently on the trunk of the body than elsewhere."

Epinyctis. "The worst pustule is that which is called epinyctis. It is usually somewhat livid, or blackish, or whitish in colour. Around it exists a violent inflammation of the skin; and, when it opens, there is found within a mucous ulceration similar in colour to the humour which it contains. The pain which accompanies it exceeds its magnitude, which is no bigger than a bean. It occurs chiefly on the limbs, and during the night: hence the name given to it by the Greeks."

It is important to the proper understanding of the views of the ancients with regard to cutaneous affections, and the signification of the terms which they used to distinguish them, to consider well the few paragraphs in which Celsus develops the history of the group of pustulæ. Firstly, we are made aware that the term "*pustulæ*" is intended to signify an eruption which causes a *roughness* or *unevenness* of the surface of the integument. At a later period in the history of medicine, this quality of "*roughness*" became one, and the

most important, of the distinctive characters of the three classes under which all diseases of the skin were assembled; namely, roughness, smoothness, and deformity. Then we are supplied with an illustration of "*roughness*" in the example of the slightly prominent wheals of urticaria and the small vesicles of miliaria; and, secondly, we are informed that it was on such eruptions, such pustules, in fact, as these, that the Greeks bestowed the now familiar term of *exanthemata*. It is also to be borne in mind, that this name was given to certain eruptions long before rubeola, scarlatina, and variola had made their appearance in Europe; which will account for their exclusion from the group.

Pustulæ, as the head of a group of eruptions, contains *exanthemata*, *phlyctenæ*, *phlyzacia*, and *epinyctis*. *Phlyctenæ* are large vesicles or seropustules, and the type of the herpes of our present nomenclature; indeed, we still retain the term in connexion with one of the forms of the latter affection—namely, herpes phlyctenodes.

Phlyzacion is a vesicle or sero-pustule developed on the summit of a pimple with a hardened base. Such sero-pustules are now grouped under the head of ecthyma; while *epinyctis* is a sero-pustule, analogous, apparently, to the pemphigus infantilis of Willan. The terms *phlyzacion* and *epinyctis* are no longer in use.

After pustulæ follows scabies, which is interesting to us as being the prototype of the eczema of the present day; in other words, the disease which the ancients described under the name of scabies is identical with that disease which at the present time we call eczema. The latter term is nowhere used by Celsus; but the disease itself was well known and well treated under its original name, scabies.

Scabies, writes Celsus, "is a harder or denser state of the skin than that which accompanies the preceding affections. The skin is red and covered with pustules, some moist, some dry, and some secreting a sanious humour; in some there is present an itching ulceration, while in others the ulceration spreads rapidly. In some persons, the disease terminates in cure; in others, it reappears at certain seasons of the year."

"When the attack is severe, the pruritus is most considerable, and the disease the most difficult of removal. This severer form the Greeks distinguished by the word *agrian*—that is, fierce."

It is worthy of remark, that in the treatment of scabies (eczema), Celsus recommends a remedy which, in certain states of the eruption, is the very best that could be employed even at the present day. It consists of sulphur, wax, tar, and oil, melted together, and in proportions such as to form a cerate of the consistence of honey.

Impetigo. "Of impetigo there are four species:—

"The milder kind resembles scabies; it is attended with hardness of the skin, redness, ulceration, and erosion. It differs from scabies in a more extensive erosion, and in the presence of pustules similar to the pimples of acne (vari); it is also accompanied with large vesicles (bullulæ), which in course of time are converted into small scales. The disease is apt to recur at certain periods of the year."

"Another kind is more severe, almost like a papula, but more rough and red, and presenting a variety of figure. It throws off superficial scales; there is more erosion; it spreads more quickly and extensively; and is more regular in its periods both of recurrence and cure than the preceding species. It is termed *impetigo rubra*."

"The third kind is even more severe than the last; the skin is more thickened; it is harder and more swollen; the surface of the skin is cracked, and more violently eroded; it is covered with scales of a black colour; is more regular in its periods both of occurrence and decline, but is not completely curable. This is the *impetigo nigra*."

"The fourth kind is wholly incurable; it differs in colour from the others; it is whitish, and resembles a recent cicatrix; it throws off light coloured scales, sometimes whitish, sometimes lentil-coloured (yellowish); and often, when the scales are removed, blood issues from the diseased skin. Otherwise the humour is colourless, the skin hard and fissured, and the disease extensively spread out."

"All these affections occur chiefly in the feet and hands, and also attack the nails."

It will have been noticed, that scabies, the representative of the most important of modern affections of the skin, is very lightly touched upon by Celsus. The reason is now apparent; the forms of disease delineated by him under the name of impetigo, are all treated of at the present day as degrees of eczema. The first kind, he observes, only differs from scabies in the superaddition of large pimples, of large vesicles, and a greater amount of erosion (ulceration). The second kind, the impetigo rubra, reminds us of our own eczema rubrum. The skin is more rough, the eruption more elevated, of a deeper red colour, more scaly, and more eroded. The third kind presents a further advanced stage of severity, of which the leading character is some degree of bleeding, and the consequent discolouration of the scales by the blood, so as to make them black. In the fourth kind we recognise, in unmistakable lines, the characters of eczema chronicum. If more were wanted to prove their identity, it would suffice to note the concluding observation as to their frequent occurrence on the feet and hands.

In modern times, we make the early presence of pus in the vesicles, the leading character of distinction between eczema and impetigo; but, as is well known, there is an intermediate degree between the ichorous and the purulent exudation, which we still distinguish by the name of eczema impetiginodes.

Papulae. "There are two kinds of papulae:—

"In one, the skin is roughened with very small pustules, is red, and slightly eroded; the eruption being somewhat smoother in the middle than at the circumference, and spreads slowly. This kind begins for the most part as a circular eruption, and spreads by the border."

"The other, the Greeks called *agrian*; the skin is more rough; it is ulcerated, violently eroded, more deeply red, and sometimes casts the hair. The less closely it approaches the circular figure, the more difficult it is of cure; and, unless it be soon removed, it is liable to be converted into impetigo."

The eruption described under the name of papulae, corresponds with the local form of lichen of the present day; for example, lichen circumscribitus, and lichen circinatus and annulatus; and the term *agrian* simply distinguishes a stage of the eruption in which, there is an aggravation of the ordinary signs of the disease, and a proclivity of the disorder towards impetigo, or the pustular form of eczema; in a word, eczema impetiginodes. In this view of the tendencies of the disease, Celsus has anticipated the more advanced views of the present time, which recognise eczema as a territory intermediate between lichen on the one side, and impetigo on the other; a condition which may be better illustrated by the terms, lichen eczematousus, and eczema impetiginodes.

But Celsus also draws into his description a lichen which affects the hairy parts of the body, and which, as a consequence of inflammation of the follicles, causes the malnutrition and fall of the hair. This we call lichen annulatus solitarius when it attacks the body; and—taking the degeneration of the hair as the most prominent sign—trichosis, when it occurs upon the scalp.

A notion is given us of the little importance that was assigned to the milder forms of "papulae," by the following remark by Celsus as to its treatment. "A slight

papula will get well by rubbing it daily with fasting saliva."

Vitiligo. "This disease is wholly free from danger of any kind, but is disagreeable, and originates in a bad habit of body. There are three kinds of the affection."

Alphos. "It is called alphos when it is white, rough, and dispersed, resembling drops sprinkled on the skin; sometimes the spots have greater breadth than mere drops; and they are apt from time to time to enlarge their dimensions."

Melas "differs from alphos in possessing a deeper tint of colour; as though of a shadow thrown upon the spots; in other respects, it is identically the same."

Leuce, "at the first glance, somewhat resembles alphos; but is whiter, and implicates the skin more deeply. The hairs growing on the part are white, and are like down."

"All these affections spread; some quickly, some slowly. Alphos and melas occur at all periods of the year, and terminate with equal irregularity. Leuce is difficult of removal. The former two admit of cure without much trouble, the latter (leuce) rarely ever gets well; for if a part of the disease be removed, the entire skin never returns to a healthy colour. But whether a given example of the disease be or be not curable, is easily tested by experiment. For, if the skin be punctured or pricked with a needle, and blood flow, as it commonly does in the two former, there is hope of a remedy; but, if there issue a colourless humour, the case is incurable. Therefore, we may abstain from treating the latter."

The three names here assembled, under the common designation vitiligo, represent two essentially different diseases; although both have been erroneously treated of under the same designation. The diseases in question, are: lepra, which takes in both alphos and melas; and elephantioid, to which belongs leuce; leuce being the morboea alba of more modern writers. The distinctions between the two diseases are very ably put; in one (alphos and melas), the surface only of the skin is affected; in the other (leuce), its entire depth; the former when punctured yields blood, the latter, serum; one exhibits vital energy, the other, inertness and atrophy; in one there is no change in the hair, in the other, the hair has lost both its colour and its quality, and is reduced to a whitish down.

The characters of alphos are admirably given:—"White, rough, dispersed, resembling drops (lepra guttata) sprinkled on the skin; or, larger (lepra vulgaris) and spreading."

SIXTH BOOK. The first chapter of the sixth book is devoted to the loss of hair. Celsus says: "I have hitherto spoken of complaints which, arising in the whole body, call for the use of medicines; now, I come to those which are apt to be developed on separate parts of the body; and I begin with the head. In the case of fall of the hair, the best remedy is shaving the head frequently; and the hair may be preserved by the use of ladanum dissolved in oil. I refer, of course, to those cases in which the fall of the hair is the consequence of illness; for where the loss is the result of old age, there is no remedy."

"*Porrigio* is a disease in which small scales crop up among the hair, and are thrown off by the skin; sometimes they are accompanied with moisture, but more frequently they are dry; sometimes they are produced without, and sometimes with ulceration; sometimes with a disagreeable odour, and sometimes with none. The disease commonly occurs on the head; sometimes, but rarely, in the beard, and sometimes even in the eyebrow. It does not, however, arise without some disorder of the body, nor is it without advantage in its occurrence. For if the head be sound, the disorder does not happen, and if there be any disorder of the head it is better that the superficies of the skin should suffer, than that the pec-

cant matter should be thrown upon some inward part. It is better, therefore, to help the elimination by combing, than to attempt to check it. Nevertheless, if it prove very annoying (as where there is a discharge of fluid, and particularly if it give out a bad odour), then the head is to be frequently shaved, and mild astringents applied; and if stronger remedies are called for, it is to be borne in mind that they are not applicable in a recent stage of the affection.*

Porriago is the pityriasis of modern dermo-pathology, sometimes dry, in which case it is a chronic erythema, or a chronic eczema that has ceased to weep; and, sometimes moist; in other words, an eczema in a state of exudative activity.

Sycosis, "so named by the Greeks, from its resemblance to a fig, is an ulcer; its characteristic sign being the growing out of the flesh. There are two varieties.—One is hard and round; the other, moist and uneven; the hard ulcer secretes a small quantity of glutinous fluid; the humid ulcer, a large quantity of a fœtid odour. Both occur upon the hairy parts of the skin; the callous and round ulcer chiefly on the chin, the other principally on the scalp."

Of the two varieties of sycosis here indicated, the former is the more common; the latter, rare; at least in this country, whatever it may have been in Greece and Italy. Possibly, the difference between the two forms may have reference to the part of the skin attacked, the former occurring chiefly among the bristly hairs of the beard; the latter, upon the less hairy parts of the face and on the scalp.

And, now, as to the signification of the term sycosis—derived from *sukon*, a fig. When a fig is ripe, it is apt to burst; its coriaceous skin gives way at some point, and the ripened pulp exudes through the opening and spreads out like the broad lip of a marble tazza; if it were a wound of the flesh, it would be said to have everted edges; while, embedded in the soft pulp, are numerous whitish specks, which are the seeds of the fruit. Now, this is the appearance which no doubt suggested to the Greek physicians the name of the disease, *like a fig*; not, however, the outer surface of the fruit, but the state which I have just described. I was struck with this resemblance myself, in one memorable case of sycosis on the cheek. The occurrence happened in the instance of a medical man; he was surrounded by his medical friends, and the opinion generally held by them of the nature of the disease was, that it was a cancerous fungus. The surface was soft, reddish, and pulp-like in appearance; smooth, semitransparent and speckled with whitish points; it had all the characters of a cancerous ulcer with strongly everted edges, and projected some distance above the level of the face. I had prescribed for this gentleman on a previous occasion, for ordinary sycosis menti; and I therefore came to the conclusion that what I saw was merely an aggravated form of sycosis; and, my opinion was corroborated by my remembrance of the derivation of the term. This opinion proved to be true; and in a short time, by the use of mild remedies, the patient was restored to health.

Area. "There are two kinds of this affection; the common characters of both being, atrophy of the superficial portion of the skin and loss of hair. If the diseased skin be made to bleed, the blood is watery and fœtid; and the affection spreads, sometimes quickly, and sometimes slowly.

"The worst form is that which condenses the skin, destroys the fat, and renders the surface totally smooth.

"That which is called alopecia, spreads irregularly and without assuming any particular form. It occurs both on the scalp and in the beard.

"That form, which, from its resemblance to a serpent's trail, is named ophiasis, begins at the occiput, never exceeds the breadth of two fingers, and creeps onwards by two heads towards the ears, sometimes to the forehead, where the two heads unite over the middle of the forehead."

"The first of these forms may occur at any period of life; the latter commonly shows itself in children; the former scarcely ever gets well without treatment; the latter not unfrequently undergoes spontaneous cure."

Celsus shows a very correct appreciation of area; it is, he says, an atrophy of the skin; and then he indicates that in proportion to the degree of the atrophy, are the chances of restoration of the hair. Where the atrophy is considerable, the disorder is incurable without treatment; and he might have added, and equally with treatment.

The ophiasis is an area advancing along the course of the antero-posterior nerves of the scalp, beginning with the occipital branches of the posterior cervical plexus, travelling onwards to the neighbourhood of the temples; then following the supraorbital nerves forwards to the forehead.

Of the treatment of area, he observes:—"Some physicians stimulate the area by punctures with the lancet; some rub in caustics, and some employ turpentine. But there is no remedy better than daily shaving with a razor; for, as soon as the superficial pellicle of the skin is removed, the roots of the hairs are opened. Frequently, the mere rubbing in of writing ink after shaving is all that is necessary."

We are hereby informed, that the popular practice of smearing eruptions on the head, or supposed ringworms on any part of the body with writing ink, dated, at the least, as far back as the time of Celsus; but we also find, on looking a little further, that the ink then in use was more harmless as an application to the skin than the ink of the present day, consisting simply of vegetable carbon and gum.

At an age, when the alphabet only of pathology was known to the world, we must not be surprised at the want of a just appreciation of several forms of disease, which, although not dangerous to life, are frequently the cause of considerable vexation, and at the present day receive their proper share of medical care and attention. I refer to three disorders next to be discussed; namely, vari, or acne; lenticle, or freckles; and ephelis, or melasma stains.

"It is almost absurd," says Celsus, "to treat vari, lenticle, and ephelis; but a care of personal appearance is a part of the nature of woman. Vari and lenticle are very well known, but there is a rarer kind which the Greeks call semeion, and which is redder and more irregular in figure than the lenticle."

"Ephelis, however, is not equally well known, in fact, it is nothing more than a certain roughness and hardness of the skin, of an abnormal colour."

"These affections appear only on the face; lenticle, however, may occur on other parts of the body, but is not worth the trouble of describing by itself in another chapter."

"Vari are best removed by applying to them equal parts of resin and powdered alum mixed together with honey. Lenticle is cured by galbanum and carbonate of soda, rubbed down with vinegar to the consistence of honey. The skin is to be anointed with these applications, and, after the lapse of some hours, say in the morning, the remedy should be washed off, and the surface lightly smeared with oil. Ephelis is best treated with resin combined with a third part of rock salt and a little honey."

From affections of the head and face, Celsus passes on to those of the eyes and eyelids; and, of the latter, he observes:—"There is also a disorder which the Greeks term *phtheiriasis*, and which results from the presence

* In his chapter on favourable and unfavourable signs, in various diseases, Celsus mentions porriago of the head and a general eruption of the skin, as favourable symptoms in the fever which follows the puerperal state.

of pediculi between the eyelashes. This complaint originates in a bad habit of body, and runs on to the production of an acrid discharge from the eyelids, and ulceration of the eyes; and endangers the sight."

SEVENTH BOOK. In his seventh book, devoted to surgery, Celsus mentions, under the designation of "disorders of the head," the encysted tumours, ganglia, meliceris, and atheroma; and, in connection with the eyelids—hordeolum.

Encysted Tumours "are very small at the beginning, enlarge slowly and by degrees, and are enclosed in a special tunic or cyst. Some of these tumours are hard and resisting; some, soft and yielding; in some, the covering skin is bare; in others, the hair is not affected; and they are generally unaccompanied with pain. Their contents, although they may be predicted, cannot be ascertained with certainty, until they are brought to light. Generally, however, those that are hard and resisting are filled with a calcareous looking substance, or, condensed and matted hair; while those that are soft, are found to contain a substance like honey or pap, or something similar to the scrapings of cartilage; or a fleshy looking sanguinolent mass; or matters differing in colour and appearance. Ganglia are commonly resisting; atheroma contains a pap-like pulp; in meliceris, the contents are more liquid, and flow out on pressure; steatoma is filled with something like fat, and spreads out under the skin, producing relaxation and flabbiness of the integument; whereas, in the others, the skin is stretched."

In reference to the treatment of these tumours, he observes:—"The hair having been removed with the razor, an incision is to be made through the middle of the tumour. In steatoma, the tunic is also to be divided and the contents turned out, because it is difficult to separate it from the skin and deeper tissues. But in the other forms, the cyst is to be preserved intact; the cyst is quickly discovered, white and tense; it is to be separated from the skin and surrounding parts with the handle of the scalpel, and gradually turned out whole, without dislodging its contents. Where an adhesion subsists between the inferior part of the cyst and a muscle, it is better to cut away the upper part of the cyst than injure the muscle; and, in this latter case, where a portion of the cyst is left behind, the wound should be treated so as to promote suppuration; but where it has been entirely removed, the edges of the wound should be brought together and retained in contact by appropriate means, and subsequently dressed with some agglutinating application."

The term ganglion is no longer used in connection with encysted tumours; nor is steatoma now regarded as a tumour of that class. The true encysted tumour is simply a distension of one of the follicles of the skin, the follicle being closed at its aperture, and the contents of the tumour being some form of epithelial substance associated with other normal productions of the follicle—such as hairs.

In *Meliceris*, the epithelium is more or less dissolved and altered by decomposition; in atheroma, the epithelium is simply softened and broken up into a state of pulp; the raspings of cartilage are the harder surface layers of the epithelial mass; the colouration of the contents of the tumours is due to the effusion of blood and its changes; and the calcareous tumours to deposits of carbonate and phosphate of lime.

Hordeolum. "In the eyelids above the eyelashes there is apt to occur a small tubercle, which the Greeks name *krithe*, from its resemblance to a grain of barley. It is slow in maturing. Certain other little tumours, not unlike hordeolum, also make their appearance in the eyelids; they are somewhat different in form, and moveable, so as to admit of being rolled, with the point of the finger, under the skin; hence the Greeks call them *chalazia*."

Taking, now, a retrospect of the dermo-pathology of

Celsus, it is worthy of remark that he nowhere makes mention of the terms—*lepra*, *psora*, and *psoriasis*. The word *eczema* was probably of later date, and would appear to have been first used by Dioscorides and Galen. *Lepra*, which occurs in the Greek translation of the Bible, and is mentioned by Hippocrates, is the name which was assigned to the leprosy of the Jews, the elephantiasis of the Greeks. *Psora* was, without doubt, the Greek representative of scabies, and identical with *eczema*; while *psoriasis* must be associated with its congener *psora*. The squamous disease, which in England and France, at the present time, is called *lepra*, is evidently the *alphos* of the ancients.

The dermo-pathologists of Germany,* headed by Hebra, confine the word *lepra* to its ancient signification; while to that disease which we term *lepra*, they give the name *psoriasis*. Herein arises a confusion of terms that might be obviated very easily, and which it is a part of the intention of this paper to endeavour to correct; and I venture now to propose that we admit the identity of elephantiasis and *lepra*, and that henceforward we call *lepra vulgaris* by its original, its ancient (it occurs in the Greek translation of the Bible) and very appropriate name of *alphos*, and leave *psoriasis* to the society of its congeners, *psora* and *eczema*; for *psoriasis* is in reality, as was admitted by Willan and Bateman, the chronic, dry, thickened, cracked, and scaly stage of chronic *eczema*.

It will also be perceived that, of the forty-four terms used by Celsus in relation to cutaneous affections, about two-thirds are Greek, and one-third Latin or Roman. The latter are as follows;—*Area*; *Carbunculus*; *Furunculus*; *Hordeolum*; *Ignis sacer*; *Impetigo*; *Lenticulæ*; *Papulæ*; *Porrigo*; *Pustulæ*; *Scabies*; *Varus*; and *Vitiligo*. Several of these are equally well known by their Greek synonyms; and it is difficult to say why Celsus should have preferred the popular terms. For example: *Carbunculus* is the *Anthrax* of the Greeks; *Lenticulæ*, the *Phacia*; *Porrigo*, the *Pityriasis*; *Scabies*, the *Psora*; and *Varus*, the *Acne*.

* Devergie (1857), while remarking that the word "*lepra*" should be restricted exclusively to elephantiasis, nevertheless retains the term *lepra vulgaris* in connection with one form of *alphos*. Hardy (1860) uses the term *lepra vulgaris* as a synonym of *psoriasis circinata*, and declares, as had in past long since been admitted, that the *lepra* and the *psoriasis* of the older classifications are identical. One step more is still wanting; namely, to adopt the term *alphos* in lieu of *psoriasis*, and to transfer *psoriasis* to chronic *psora* or *eczema*.

ORIGIN OF PARASITES. Opinions upon the subject of parasitism have within recent times undergone considerable changes. Formerly medical observers attributed many diseases to the influence of animal or vegetable parasites which were even supposed by them to generate spontaneously. In time a reaction took place. Many products supposed to be parasite proved to be nothing of the sort, and a theory was broached that entozoa existed in the bodies of men and animals for some wise purpose and excited the secretions, favoured digestion, etc. Others supposed that parasites were only developed in animals previously diseased, and that for the production of any parasitic malady it was necessary that a predisposition should be acquired by a certain state of ill-health. Now, however, both these theories are exploded, and it has been ascertained that parasites are not generated in certain morbid conditions, nor do they exist in animals to excite the normal functions of their organs. ("They are offensive products) foreign to the bodies of the men and animals they afflict, and dependent entirely for their development on the introduction of germs into bodies suited to their growth, protection, and reproduction." A few parasites, it is true, exist in or on all human beings and animals; but the greater portion cause actual disease, and often produce maladies of a very fatal nature.

Original Communications.

ILLUSTRATIONS OF THE DIFFERENT FORMS OF INSANITY.

By W. H. O. SANKEY, M.D. Lond., Medical Superintendent of the Female Department of the Hanwell Asylum.

[Continued from page 322.]

IN the case last given, there was a predisposition to insanity in the patient's family. The father died of insanity, said to have been produced by drink. The next case is chosen as an instance in which the hereditary tendency was still more marked, and the evidence of its existence more positive.

CASE III. A. D., a female, was admitted in December. She was 24 years of age; single; a domestic servant. The mother said that she had noticed the patient's memory to have been failing for three months; she had also complained that she felt miserable, and that "she could not think." She became gradually more depressed, and said she should become lousy—which she often repeated. She slept ill; and the mother believed that for three months the patient had scarcely slept one night, but had been restless and fidgety night and day. At intervals, she had refused food; and went without for several days together, saying she did not require food. At times, she would stand in one position for many hours together, biting her knuckles. She had also shown a great disposition to wander away, so that her friends were obliged to lock their doors; but she would stand for hours watching her opportunity to get out. She stood on one occasion at the door for three days consecutively. Throughout, she had been little disposed to speak.

The medical certificate described the patient thus:—"Found her sitting by the fire with a very melancholy aspect; and asked how she only stayed one day at her last place? She did not answer till the question was repeated three times; and then only said, 'I don't know.' Asked her why she did not take off her day clothes on going to bed? and after awhile, she replied only, 'I don't know.' Her sister has been in a lunatic asylum; and her father was subject to melancholy." It appears that, about a fortnight prior to the patient's admission, she seemed a little better, and engaged herself as a servant; but would not stay in her situation more than a day.

Her natural disposition was described to be somewhat dull and apathetic; never very lively. She had been thriftless, and unable to manage for herself; she was mild and retiring in manner. Her health had been always delicate. Her bowels were always much constipated, acting, as a rule, but once a week. Menstruation was normal.

Cause. Her father, whom the medical man described as addicted to melancholy, was reported by the mother of the patient to have died of paralysis. "The paralysis first seized him in the little finger, and it gradually spread to his limbs, which shook and trembled, and at last got so bad that he could no longer direct his fork to his mouth, and he had to be fed. He never stammered, nor was his voice affected; and his mind remained clear; for he was paralysed seventeen years, and during the first seven years he was a singer in 'the chapel'. He was a temperate person; he did not work in lead or in quicksilver."

One sister of the patient is said to have had a brain-fever, which lasted a twelvemonth (probably a case of mania). Another sister was insane, and was in Colney

Hatch Asylum four years, and ultimately discharged cured. The case was considered to be hysterical mania by Mr. Marshall.

The progress of A. D.'s case was, briefly, that on admission (on about the ninetieth day), she was confused, only moderately depressed, and was tractable; pulse 104. She took an aperient on the day after admission. Though pale and thin, she took her meals well; and the bowels were regulated by an aperient pill.

114th Day. She was moved into a convalescent ward, room being required in the infirmary.

121st Day. She was moved back to the infirmary. She had scarcely eaten since her removal; she was much altered; was greatly depressed; seldom spoke; but moped, and took no heed of what was passing. She said she wanted to die. She had taken only a small quantity of beef-tea that day. The tongue was clean; bowels not open; she had neglected the aperient.

122nd and 123rd Days. She refused food and medicine, and was ordered to have an enema.

125th Day. She obstinately refused to take food. She had another slight action of the bowels after the enema on the previous day; but resisted so strenuously that it could not be efficiently administered. She had had no stool that day. The expression of face was that of great dejection and anxiety. She had had no sleep all the night; but stood out of bed, and would not lie. She was evidently more feeble; pulse 108. She would not show the tongue. The breath was offensive; the skin was harsh, and emitted a peculiarly offensive odour. The urine was scanty and high coloured. She was ordered to be fed by the stomach-tube with eggs and milk.

124th to 128th Days. She had taken small quantities of food only—chiefly liquids, beef-tea, eggs, wine, and tea. There had been slight action only of the bowels for six or seven days. An enema or castor oil was ordered.

129th Day. The enema could not be given, but she took the oil, which had not acted. She sat in an uneasy constrained position, which had the appearance as if she were resisting the disposition of the bowels to act (a perversity of instinct not very uncommon among the insane). She passed urine freely. She partook very sparingly of food; was dull, taciturn, obstinate, stubborn, and evidently weaker. The castor oil was ordered to be repeated.

130th Day. She had taken several doses of the oil, but had had no action of the bowels. There was no vomiting, nor tympanitis. The belly was hard; she resisted examination. She had taken only small quantities of beef-tea.

136th Day. The bowels continued very obstinate, and had acted once only, slightly, since the last report. She continued to refuse all nourishment; was dull, taciturn, listless, and gradually failing.

She died on the 138th day.

It must be remarked, that the obstinate refusal of food is often persisted in so long that the strength of the patient is irretrievably lost. Fluid nourishment, administered mechanically, can only postpone the event for a period. Though this gain of time is often most valuable, it is frequently ineffectual in averting the fatal termination.

With respect to the treatment, it is necessary to bear in mind that the most important part consists, not in the therapeutical, but in the moral agents. The indications are, 1, to rest the affected organ; and 2, to regulate the general health. The affected organ is rested by the withdrawal of the excitants. Its functions—that is, the mental functions—are regulated, soothed, tranquillised, by removal from the world and its turmoils; by the diversion from its accustomed track, which the contemplation of the new scene around the patient newly admitted effects. The force of example leads many to fall into the rules, who would be otherwise disposed to rebel. Long habit gives to the attendants a

manner which is calculated to gain the confidence of the patient; by long custom they have ceased to be annoyed by irritating language: and it must be said, to many patients the unexpected kindness which they receive from strangers has a favourable effect upon their minds. In the next place, the regularity of the hours, the abundance and excellence of the diet, the order and cleanliness, must be duly accredited with much of the physical benefits produced. In the infirmary ward, in which most of the cases in the acute stage of disease are, and into which all patients are first received, the diet consists of roast mutton daily, with plentiful variation of puddings, fish, broth, vegetables, etc., and other articles, according to the varying fancies or requirements of the patients. A generous diet of this kind must, therefore, be always understood as part of the treatment employed in these cases, unless the diet be specially named.

Constipation appears undoubtedly to be pretty constantly present in the cases already given. Many writers are disposed to look upon the catamenia and its disordered state as an almost equally frequent determining cause of insanity in females. There is rather a tendency in the mind of the female relations to implicate this function; and it is, therefore, somewhat difficult justly to estimate its bearing upon the mental phenomena. I have known patients in violent states of mania, and also in melancholia and chronic mania and imbecility, to menstruate regularly and normally, the general health and condition being good. There is probably, however, some coincidence between intermitting outbursts of excitement and the catamenial period. In the following case, the uterine functions were certainly complicating the case.

CASE IV. A. E., aged 32, single, was first admitted in 1859. The father, a gentleman's coachman, narrated the following particulars. She had, during the last three years, been in close attendance on her mother, who was bed-ridden. The residence was in a mews, but the locality was said to be healthy. A slight alteration arose between the patient and one of the female servants of the father's master, relating to a practical joke that had been played upon a young man. The patient was accused of having divulged the name of the perpetrator of it to him. Very shortly after this, she exhibited an alteration in her manner; was agitated, forgetful, and at times almost lost; and the father believed she was worse on alternate nights. She was engaged, and had been so for some time, to a young man who had gone to Scotland; but the father thought she had become rather cool towards him, and, he suspected, preferred the other, on whom the joke was practised. She gradually began to pine away. The circumstance occurred about five weeks before she was admitted. She continued to dwell on the subject, and frequently alluded to it; was confused, abstracted, at last became agitated and nervous, threatened to destroy herself, and attempted to get out of the window. On admission, she was emaciated, very delicate in appearance. Her complexion was swarthy and dusky; the hands and feet cold, with pimples on the lips and extremities. Her bowels were constipated, and the catamenia were suppressed. She was treated with aloetic purgatives and generous diet, with the usual discipline as to air, exercise, etc. She rapidly improved, and was discharged cured three months after admission.

She was readmitted about two years afterwards. The father reported that she had remained quite well since her discharge, and returned to her former employment of nurse to her mother. About a fortnight previously to her second admission, she began to be somewhat fidgety, running about the house without object; and at length became suddenly irritable and very violent, and made a dash at the window, as if she wished to throw herself headlong into the street. The window was shut,

but she broke the frame with her violence. She was attacked immediately with acute pain in the belly (a cramp). She was taken to the workhouse, and thence transferred to the asylum. At the time of the outbreak she was menstruating; and the father understood that of late the catamenia had been very irregular, and attended with pain. She had been much constipated in her bowels, for which she would not take medicine. She again quickly recovered; but was restless and fidgety at the catamenial periods, and did not regain her mental vigour for near nearly four months after the cessation of the active symptoms.

[To be continued.]

CASES OF GUN-SHOT WOUND.

By T. L. PRIDHAM, Esq., Surgeon, Bideford, North Devon.

It is not often that medical men in private practice have to relate instances of gun-shot wounds; still, however, with those who have been in practice some thirty years, cases of more or less interest may be found in the notebooks of those who have kept such records.

The following three cases, as not having occurred in the battle-field or in strife, will, I may venture to hope, be deemed of sufficient interest to find a place in the *BRITISH MEDICAL JOURNAL*.

CASE I. In 1845, one dark and stormy night, I received a note from my friend, the present Dr. John Thompson, requesting my advice and assistance on the island of Lundy, about twenty miles hence, in a case of gun-shot wound in a young gentleman aged 15, who was on a visit to the governor of the island. I accordingly hastened to Clovelly, where a skiff was in waiting to take me to the island. Whilst we were crossing, the wind suddenly shifted to the westward, which enabled me to land at the only point accessible to a boat. I reached the governor's house just as the day was beginning to dawn, and soon found myself by the bedside of the patient, whose appearance I shall never forget. His countenance was pale, anxious, and desponding. On removing a light covering, I beheld, with feelings somewhat approaching to horror, the whole of the forearm and the greater part of the upper arm in a gangrenous state. The poor fellow, in company with others, had four days previously been on the sea shooting wild fowl, which are numerous on and around the island. In landing from the boat, he carelessly took hold of his gun by the muzzle with his right hand, when, by some means, the gun went off, and the whole of its contents passed through the inner part of the upper arm, just midway between the shoulder and the elbow, dividing the blood-vessels and nerve in the situation I have described. A sailor, who was near at the time of the accident, immediately tied a thin silk neck-handkerchief tightly round the upper part of the arm. Little blood was lost at the time of the accident. The poor boy was removed to the governor's house, some distance off. No medical man was near. Night coming on, a large fire was lighted on a certain part of the island, which could be seen at Clovelly, and known as a signal of distress; or, in other words, that medical aid was required. The medical man of the village, Mr. Heard, reached the island during the night; and, seeing the nature and severity of the accident, despatched the vessel which had brought him over for Mr. Thompson, surgeon, of Bideford, who also reached the island as soon as the winds and the waves would permit. It was at once apparent to him that nothing short of amputation at the shoulder-joint could possibly save the life of the sufferer. Before commencing so important an operation, he was desirous that still further surgical aid should be obtained; and accordingly, on the night I have named

above, I received the note from Mr. Thompson describing the nature of the accident, and requesting me to bring certain instruments, etc., to meet the emergency of the case. I reached the island at the time I have named, on the fourth day after the accident. To all appearance, the boy was in a dying state, with but little pulse at the wrist. On his asking my opinion of his case, I first cheered him as much as I could, and then told him there was one only chance of his life, which would quickly terminate if his arm was not removed at the shoulder-joint. He was a brave boy, and said at once: "Lose no more time; let me only scratch a few parting words to my mother." He had not completed the first two words of filial affection before he fainted, and we thought all was over. By means of external restoratives, however, he breathed again; and I contrived to get half a pint of port wine into his stomach. When he had rallied a little more, my friend Mr. Thompson seized the opportunity, and in less than five minutes the operation was over, I taking charge of the subclavian artery by the usual means of pressure, which was so effectual that not an ounce of blood was lost during the operation. The arteries being secured, there was just sufficient skin to cover the wound. An opiate was given; tranquil sleep followed; and at the end of twelve days the ligatures had come away; and on that day, three weeks after the operation, he had crossed the bay, and was my guest, together with his father, who was a clergyman living in the neighbourhood of Bristol; he having, in company with the late Mr. Wilson, surgeon, reached the island about an hour after the operation had been performed. In due course the young man went to Oxford, and was ordained; and a short time since I met in the train a college friend of his, who informed me he was still alive and in good health.

It was found, on dissection, that the blood-vessels and the brachial nerve were all divided.

CASE II. Robert Cann, aged 26, working in an iron-foundry, was standing on the quay at Bideford, when a boy in a boat just ten yards off pointed a duck-gun at him, not knowing it was loaded. The gun went off, and the contents took effect in the upper part of the man's thighs and scrotum. Fortunately, the abdomen escaped uninjured. The shots, which were No. 3, were, as may be supposed, deeply imbedded. The man dropped, and was afterwards carried on a shutter to his home. I was soon in attendance, and directed soothing applications, and gave an opiate, the shock to the system appearing to be very great. The shot-holes soon healed, and the case appeared to progress favourably up to the seventh day, when the patient directed my attention to a small but painful swelling directly in the course of the femoral artery, about six inches from Poupart's ligament, in which situation two of the shots had previously entered. The tumour pulsated. At once I feared these were but indications, too true, of an incipient aneurism in consequence of injury inflicted on the coats of the artery at the time of the accident. A consultation of medical friends was held; and it was agreed to wait to see a further development of the tumour. At the end of a fortnight, it had increased considerably, and the pulsation became more distinct. It was now proposed to the patient that the operation for tying the femoral artery would be necessary. He, however, was most positive in his refusal to undergo any operation, and said "he would die first". A fortnight more passed, when the tumour had become of the size of a large hen's egg. By this time the cicatrix of each shot-hole had gradually yielded, and had become almost transparent; so much so, that the pulsations could be distinctly seen beneath the thin film which prevented the stream of life from issuing forth and terminating existence in a few minutes. An assistant was left in charge, who frequently had to remind the man of his momentary danger; but no powers of persuasion of the medical man had any avail,

but the curate of the parish (the Rev. Mr. Braithwaite) at the last moment gained consent. He came running to my house, and begged me to hasten, as he was sure that in a few minutes the man would be dead. I at once sent to some medical friends who had been visiting the patient with me, and went myself to the house. As soon as we were all assembled, the operation of tying the femoral artery just below Poupart's ligament was commenced. Having opened the sheath, and separated the artery from the vein beneath, I was in the act of passing the ligature round the artery by means of the aneurismal needle, when the cicatrix of each original shot-hole simultaneously gave way, and two jets of arterial blood, of the size of a writing-quill, gushed forth. My assistant, Mr. Blanchard, instantly arrested the flow of blood by placing his two forefingers on the orifices whence the blood was rapidly flowing. The artery having been secured by ligature, the aneurismal sac was allowed to empty itself, the wound was dressed, and a bandage with a soft compress was applied over the seat of the aneurism. At the end of sixteen days, the ligature came away, and all appeared at this time to be doing well; the temperature of the limb, by the assistance of flannel and warm applications, not having fallen to any great extent after the operation. At the expiration of a few days, however, the patient complained of pain and stiffness at the posterior and upper parts of the thigh that had been operated on. On examination, it was found that phlegmonous inflammation had set in. A large linseed poultice was at once applied; and, after some days, a considerable abscess had formed, which I opened extensively, and in the discharge I discovered four or five shots; and for several days shots were found on the surface of the poultices. Other small abscesses formed, from all of which shots were discharged, altogether about forty in number. Sinuses formed, which were freely laid open.

The patient was well supported by means of porter, wine, and fresh meat; and, at the end of three months, the discharges had ceased, and the wounds had healed. Six months later, the man had returned to his labour as an iron-founder, in which employment, I understand, he still remains, just eighteen years after the accident and the successful operation of tying the femoral artery under peculiar and interesting circumstances.

CASE III. A few months since, Edwin Elliot, a boy about 16 years of age, was walking down the High Street of Bideford, when his elder brother came behind him with a pocket-pistol in his hand, and, not knowing it was loaded, he pulled the trigger, he being about two yards in the rear of his brother. A small bullet, weighing rather more than half a drachm, passed through his coat and entered the body just below the inferior angle of the right scapula. The boy was conveyed home. I was soon in attendance; and found, by the direction that the bullet had taken, it had passed behind the vertebral column to the opposite side—four and a half inches—the extent to which I passed my probe, but could not then even detect the bullet. The boy was at the time in much pain, but no very urgent symptom arose; his easiest position being on his hands and face. I withdrew a small portion of his woollen dress from the wound on the second day after the accident. The wound was dressed with poultices of large dimensions. The discharges were considerable, dark, and offensive. After some days, the boy could rest in that position which rendered the orifice of the wound the most depending part; and, at the end of a fortnight, I had the satisfaction of finding that the bullet had gravitated to the surface, and it was easily removed. The discharge became healthy; and in a few days the wound had healed without further trouble. I record this case in order to show that, if a ball be not impacted in bone, or producing much constitutional irritation and fever, it is prudent to leave the issue to nature, provided the limb or body of the patient

can be placed in such a position that by gravitation the foreign substance may find its way out by the same track by which it has entered the body.

Reviews and Notices.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF WOMEN, INCLUDING THE DIAGNOSIS OF PREGNANCY. Founded on a Course of Lectures delivered at St. Mary's Hospital Medical School. By GRAYLY HEWITT, M.D. Lond., M.R.C.P., Physician to the British Lying-in Hospital, etc. Pp. 628. London: 1863.

DR. HEWITT has adopted a somewhat unusual plan in this work; inasmuch as he has divided it into two parts, in the first of which he treats specially of Diagnosis, and in the second specially of Treatment. The object which he has had in view in so doing is unexceptionable—to afford increased facilities for diagnosis.

"Very little consideration will show how completely subsidiary to questions of diagnosis are all others likely to present themselves to the student in his early attempts to investigate disease, of whatever kind, and wherever situate.... Without diagnosis no advance can be made but on the imperfect basis of surmise and conjecture. Everything, in fact, turns on the diagnosis; and, once the diagnosis has been made, the path is comparatively clear.... In the study of no class of diseases do we meet with so many practical illustrations of the truth of what has been stated in reference to the importance of diagnosis, as in that to the consideration of which the following pages are devoted. A very large proportion of the cases coming under the notice of members of the profession are cases in which diagnostic knowledge as to these particular diseases is specially called for; moreover, this is a department of practice in which mistakes in diagnosis are very frequently disastrous to the patient or destructive to the reputation of the practitioner. The very important question of the diagnosis of the presence or absence of pregnancy is, of itself, one for the practical dealing with which a very extensive and complete knowledge of the diseases of women generally is absolutely essential."

In the chapters on Diagnosis, which occupy 438 pages of the book, Dr. Hewitt bases the information he endeavours to convey on symptoms rather than on pathology. He does not, however, ignore pathology, of which, as his previous writings have shown, he has a just appreciation; and the valuable additions which have in late years been made to our knowledge of the pathology of women's diseases will be found introduced sometimes among the remarks on diagnosis, sometimes among those on treatment, sometimes separately. But what Dr. Hewitt justly argues is, that the practitioner requires to learn how to make the best use of the case as it is presented to him at the bedside—which is not "pathologically and to suit our convenience."

The subject of Diagnosis is treated of by the author under two main divisions; viz., the data obtained without physical examination; and the data obtainable by physical examination. In the first of the sections, nine chapters are devoted to the consideration, in their diagnostic relations, of the Age of the Patient; Sexual Relations; Menstrual Derangements, and External Hæmorrhages from the Generative Organs; Substances Expelled from the Gener-

ative Organs; Non-Sanguineous Discharges; Disorders of Micturition; Symptoms referable to the Rectum; Abnormal Sensations referable to the Generative Organs; and Nausea and Vomiting. The section on data obtainable by physical examination contains seventeen chapters, in which the author describes the Morbid Conditions discoverable by Examination of the External Organs, and of the Orifice and Canal of the Vagina; Tumours felt through the Vaginal Wall; the Condition of the Uterus as ascertained by Digital Examination, by the Sound, and by the Speculum; the Examination of the Abdomen and the Causes of its Enlargement; Tumours (Uterine and Ovarian) Traceable into the Pelvis; Abdominal Tumours not Traceable into the Pelvis; and the Examination of the Breasts in reference to the Diagnosis of Pregnancy. A supplementary chapter is added on the Diagnosis and Causes of Sterility.

In the second part of his work Dr. Hewitt describes, in fourteen chapters, the Treatment of the various diseases described in the first part; viz., Amenorrhœa; Profuse Menstruation and Hæmorrhages; Leucorrhœa, and various Non-Sanguineous Discharges; Pain referable to the Internal Generative Organs; Dysmenorrhœa; Sympathetic Affections arising from Disorder of the Generative Organs; Disorders of the External Generative Organs and of the Urethra and Bladder; Diseases of the Vagina; Inflammation, Displacements, Cancer, Fibrous Tumours, and Polypi of the Uterus; Diseases of the Ovaries; Periuterine Hæmatocele; Pelvic Abscess; and Diseases of the Fallopian Tubes.

A noteworthy feature of this book, and one which increases its utility, is the exhaustive manner in which Dr. Hewitt arranges, under some one symptom or sign, all the conditions known to give rise to it. Thus, in speaking of Pains referable to the Internal Generative Organs, he divides them into two classes—1. Those associated with menstruation, constituting dysmenorrhœa; and 2. Painful sensations irrespective of menstruation. Painful menstruation, again, is then described as consisting of two classes of cases; those in which there are both pain and impeded discharge; and those in which the menstruation is simply painful, the discharge being apparently free. The pains experienced irrespective of menstruation are chiefly of the kind called reflected, being produced in more or less distant regions by uterine or allied disorders. Under this head are described, pains in the back, in the hypogastric region, and in the lower extremities.

The hypogastric pains are divided into six classes; viz., intermittent or labour-like pains; pains more or less constant; pains of inflammatory character; pains with symptoms like those of perforation; hysterical pains; and bearing-down pains.

The conditions under which intermittent pain may be observed are: mechanical retention of the catamenia; abortion; periuterine hæmatocele; blood-clots, fibrous polypi, retained portions of placenta, etc., in the uterus; tumours in the substance of the uterus; puriform or other fluid collections in the uterine cavity; flexion of the uterus; difficult menstruation; intestinal irritation; and sometimes neuralgia of the uterus. More or less constant hypogastric pain is produced by cancer of the uterus; fibrous tumour; the irritable uterus; disease of the cervix

of the uterus; and, in the ovarian region, by various causes, as subacute ovaritis (Tilt); pelvi-peritonitis (Tilt, and Bernutz and Goupil); ovarian irritation (Churchill); neuralgia (West); inflammation of the cervix uteri (H. Bennet); sexual irritation; gonorrhœa (De Méric); a kind of ovarian prolapsus (Rigby). Pain of an inflammatory character is met with in all cases in which the ordinary signs of inflammation are present, and are referable to various causes producing inflammation. Sudden acute and intense pain in the hypogastric region, with great prostration, shock, and often other symptoms of depression, excite a suspicion that rupture of some viscus has taken place. Pain of this kind is met with in intestinal perforation, in pelvic hæmorrhage from the ovaries, Fallopian tubes, etc.; in hæmorrhage in extrauterine pregnancy; in rupture of the gravid uterus; and in rupture of ovarian cysts. Hysterical pains in the hypogastric region require to be distinguished from those of inflammatory character, as well as from those produced by perforation. With regard to inflammatory pains,

"The error most liable to be committed is that of taking for inflammation what is only an hysterical condition. As a rule, hysterical pain is marked by its severity, by its variability, by the suddenness with which it appears and disappears, and by the circumstance that the patient is known to be hysterical, or to have been the subject of hysteria. The condition of the pulse is the best criterion. In cases otherwise closely simulating actual peritonitis, or inflammation of the uterus or of the adjacent organs, the frequency of the pulse in the latter affections is wanting." (P. 145.)

Then, as to the serious class of cases in which sudden pain is produced by perforation,

"The severity of the pain is, by itself, of not much value in a diagnostic point of view. In hysterical cases, there is an absence of symptoms of depression and prostration; and there is, moreover, generally, evidence of previous hysterical attacks, or, accompanying the severe hypogastric pain, there are other unmistakable signs pointing to hysteria.... On the other hand, in the really serious cases, the patient has been previously in a state of good health, or, at all events, free from attacks of hysterical character, and the positive signs of great perturbation of the system only require to be looked for to be detected. Further, examination of the abdomen gives valuable information. In hysteria, there is, together with the pain, great sensibility of the surface, the slightest touch giving rise to complaint, whereas deep, slowly increased pressure is not painful; the reverse is true of the class of cases now under discussion" (those of perforation). "It is only at the onset of the attack that there is any possibility of confounding the perforation-symptoms with those produced by hysteria." (P. 146.)

The chapter on Tumours felt through the Vaginal Walls by Digital Examination affords another instance of the complete and orderly arrangement adopted by Dr. Hewitt. These tumours are first enumerated; and then are grouped in the following way, according to the situation in which they are felt:

"The tumours which may be felt *equally on all sides*—that is to say, which are not felt exclusively in one or other position—are the following:—Enlargement of the uterus; periuterine hæmatocele; pelvic abscess; ovarian tumours; extrauterine pregnancy; fibrous tumours. Ascitic distension of the peritoneum should perhaps be added to this list, although there is no tumour in the strict sense of the word in such cases.

"The tumours which are felt exclusively *behind* the os uteri are:—Distension of the rectum by fecal matters; cancer of the rectum; retroversion or retroflexion of the uterus.

"The tumours which are felt usually, but not exclusively, *behind* the os uteri are:—Ovarian tumours in their early stage of growth; distension of the Fallopian tube by fluid of any kind; Fallopian pregnancy; Wolfian and hydatid cysts.

"The tumours felt exclusively *in front* of the os uteri are:—Calculus in the bladder; distension of the bladder with urine; anteversion and antelexion of the uterus.

"If for the word '*behind*' the word '*laterally*' be substituted in the foregoing summary, the account given will still be true; for those pelvic tumours which are lateral are generally also posterior to the os uteri, and *vice versa*." (Pp. 197-8.)

The various pelvic tumours discoverable by vaginal examination having been thus enumerated, they are next considered in detail, and the diagnostic peculiarities of each are pointed out.

Again, in the chapter on Enlargement of the Abdomen due to the Presence of a Tumour, we find the author, after noticing the so-called "*phantom tumours*," and giving directions for their detection and dispersion, dividing these tumours into those which are traceable, and those which are not traceable (necessarily so at least), into the pelvis. In the first class are enumerated and described, as the more ordinary causes of enlargement: enlargement of the uterus from pregnancy, fibrous tumours, etc.; ovarian cystic disease or tumour; enlargement and distension of the Fallopian tube; extrauterine pregnancy (usually); periuterine hæmatocele; distension of the urinary bladder; pelvic abscess; and, as more uncommon causes—fecal tumour; subperitoneal cysts; cysts in the omentum; fibrous, cancerous, or osseous growths from the pelvic bones; hydatid tumours; enlargement of spleen (when the spleen is so enlarged as to descend into the pelvis); cancer of the peritoneum; cysts or tumours connected with the kidneys; distension of the ureter; enlargement of the liver; retained encysted foetus (which may also come under the next head).

As abdominal tumours not necessarily traceable into the pelvis, are enumerated—diseased liver; enlargement of the spleen; hydatid tumours in cavity of abdomen; fecal tumour; pedunculated fibrous tumour of the uterus; cancer of the peritoneum; fat in the omentum; enlargement, etc., of the kidneys; and movable kidney. The diagnostic marks of each of these conditions are then pointed out, with regard to their importance. In describing the diagnosis of the uterine enlargements, Dr. Hewitt introduces a complete account of the diagnosis of pregnancy.

In the part of the work which is devoted to the consideration of Treatment, Dr. Hewitt not only gives the methods of treatment which his own experience has sanctioned, but also impartially points out those plans which have been advocated by other men of authority in the matter of female diseases. In this part of the work, the reader will find a very fair exposition of the views which have been held in late years on several important points—such as the use of caustics in chronic inflammation of the os and cervix uteri; the treatment of uterine prolapsus and flexions; ovariectomy, etc.

An easy reference is afforded to the subjects described in this work, by means of a copious table of contents and a well constructed index.

We have much pleasure in expressing our favourable opinion of the utility of Dr. Hewitt's work. As we have already shown, it does not proceed on the common plan of analysing a disease into its symptoms; but it is rather a guide to the practitioner who, meeting with a case which presents a certain assemblage of signs and symptoms, requires to ascertain what they mean, in order that his treatment may take a proper direction.

HANDBOOK OF PHYSIOLOGY. By WILLIAM SENHOUSE KIRKES, M.D., F.R.C.P., Senior Assistant-Physician to, and Lecturer on the Principles and Practice of Medicine at, St. Bartholomew's Hospital, etc. With Illustrations on Steel and Wood. Fifth Edition, carefully revised and enlarged. Pp. 774. London: 1863.

THE author of this excellent handbook has, in the present edition, made such additions as were necessary to bring the work up to the present state of our physiological knowledge. It hence maintains the position which it has long held—that of being the text-book of human physiology for the British student.

British Medical Journal.

SATURDAY, OCTOBER 31st, 1863.

CATTLE-DISEASE IN TOWN DAIRIES, AND ITS PREVENTION: THE QUESTION OF LEGISLATION.

ON Thursday week last there was a large meeting in London, under the presidency of Mr. Holland, M.P., at the Marylebone Institution, to hear a lecture and to conduct a debate. The lecturer was Professor John Gamgee of the New Veterinary College, Edinburgh; the audience, the London cow-keepers; and the subject, "Disease in Town Dairies, and its Prevention." All things taken into consideration, the meeting was successful. It was a peculiar meeting—a meeting such as has not been seen in London ever before; a congress such as none but a sanitary reformer like John Gamgee could venture to summon; an assemblage which might have swallowed up, not without previous warning, the daring spirit that brought it from its milky way, but which did not do anything of the kind, but sat on its own stool, complacent throughout, self-possessed, and characteristically odoriferous; which heard its own property depicted with dead pleuropneumonic lungs budded upon its healthy living tails; which heard of said tails as, a few days later, swollen, purulent, shaky, and adding luxuriously their complement to the milk in the pail; and which under all this exposure never denied, never winced, never swore, but, charmed by the charmer, behaved gentlemanly and patriotically. Surely this was success with a vengeance.

Cui bono? What was the meaning of this meeting. In any plan of conduct a rational man always considers two things: first, the object or end which he proposes to attain by his action; and, secondly, the means by which that end is to be successfully pursued. There can be no mistake that Mr. Gamgee had both these points in view in calling the meeting as he did; and, as the question at large is one that concerns us as closely as it does any other section of the community, we may consider it from the same point as the lecturer, and with the same intentions.

One object Professor Gamgee had in view, then, was probably to inform the public of the present state of Town Dairies in such a manner as to admit of no doubts, misrepresentations, or equivocations. The Medical Officers of Health, in London at least, had faithfully exposed what they had seen: in a Government Report, Mr. Gamgee had exposed already what he had seen. At the late Social Science Meeting, in Edinburgh, a discussion had ensued in which various speakers had shown what they had seen: and Mr. Rawlinson depicted the "Slink Butchers" and the "Staggering Bobs;" while newspaper correspondents had detailed various stray facts, all confirming the general statement and comparison. But, after all, these statements, true though they might be, were *ex parte*; they were not made in such a manner as to admit of fair and possible contradiction. Cow-keepers, as a body, are not addicted to literature; the art is to them not congenial, not friendly; few of them even have excelled in poetry, that first and simplest of literary efforts. How, then, or where should they refute the magnates who were against them? All the talk, all the exposures, might be mere invention, or sensation, or exaggeration—*couleur de turnip*—standing unanswered by mere default. But Mr. Gamgee, in calling together all the cow-keepers of the metropolis, met at a single stroke and in one practical effort every objection and every difficulty. If the members of the fraternity of milk-venders cannot use the pen of the ready writer, they can all speak for themselves at a congress, and some, as it turned out, can speak fluently and with reason; they had therefore at the meeting the fullest opportunities of denying accusations, explaining away mistakes, or correcting exaggerations, and, as not a single speaker undertook for a moment to controvert the facts that were adduced as to the amount of disease extant in Town Dairies, we accept all that has been put forward as settled and proven, and may thank Mr. Gamgee at once, for this satisfactory result of his labours. It was worth his journey and his trouble to set forth in so sure a light the evidence that had been collected by himself and his friends.

The facts themselves that were elicited, have been often told, but they deserve repetition. Mr. Gamgee himself arranged them under the following heads.

"Statement of Facts Relating to the Dairies of Large Towns."

"Experience teaches us, firstly:—That cow-sheds are indispensable, just as much as stables for horses are indispensable, in large cities. The country supply of milk may greatly limit the number of cows kept in densely peopled districts; but the wants of the community necessitate having some cows near to the people who consume the milk. Railways have not altogether annihilated space; there are moderate sized towns where all the cow-sheds might be beyond the police bounds, but in London and other large cities this cannot be attained.

"Secondly:—The contagious diseases which have destroyed town dairy-stock to so great an extent during the last twenty years, spread independently of any local cause which might happen to militate against the health of animals. All the whitewashing, ventilation, flushing channels, and cleaning out manure heaps, so properly insisted on by medical officers of health, have tended to abate the nuisances which cow-sheds proved to be to their neighbourhoods, but they have in no way checked the mortality amongst cows by contagious disease.

"Thirdly:—Prior to the importation of foreign stock and foreign diseases, our town cows lived many months, and even two or three years, in the execrable sheds so often noticed with disgust and discontent, or with perhaps too much romance. It was no uncommon system to breed from the true dairy cow; now cows have become scarce. They cost more though they are not generally worth more; and, instead of living on in tolerable health, they die, or are slaughtered, within six months of entering the town cow-house.

"Fourthly:—On the system at present in force every dairyman must sell his diseased cow to the butcher, or be ruined; there is no alternative. Some inoculate their cows with success, but others either discountenance the operation or have it performed by ignorant persons, who destroy as many animals as they successfully operate upon.

"Fifthly:—The prevalence of disease amongst cows necessitates the use of diseased milk, or of milk largely diluted with water. Of the diseased milk much is directly injurious to human beings, and especially to infants."

This first object which Mr. Gamgee had in view, the correct enlightenment of the public in respect to the condition of Town Dairies, was, as we have seen, attained. But his intention did not stop at this one point; he had in view the further object of preventing the continuance of the diseases specified; and at the meeting to which we refer a resolution was moved and seconded, in which was indicated the direction he would take towards prevention. The movement of this proposition was a good test of the feeling of those who are most interested on the trade side, in respect to Mr. Gamgee's proposed plan: and the result showed, if ever his plan were formally brought forward, what the opposition on that side would be. The resolution was so strongly opposed, that it was withdrawn without going to the vote. Let us look at this plan for ourselves, and see how far it is likely to succeed. We may premise that, in order to secure success, Mr. Gamgee wishes to secure legislative interference. He desires an Act, and, if he has not given us the words of it, he has presented the substance. His suggestions run as follows. That we may not misrepresent him, we

quote from the *Social Science Review* of Saturday last, in which his lecture is published in full, his own words.

"With a view to the prevention of disease, and therefore ultimately to the complete abolition of the traffic in diseased cows, I propose, that on a veterinary surgeon's certificate, the cows which show the first or premonitory signs of disease should be sold—such animals should never be allowed to remain a day in the dairies, as they there yield bad milk, and communicate disease. Let them be at once removed. Moreover, they should not be allowed to stand in the public market, but transferred to a near slaughter-house to be killed. I am here alluding to cows seized with the lung-disease, which in the very earliest stage can be eaten with tolerable impunity. The system of sale which I recommend has been adopted everywhere on the Continent, where efforts have been made to stop the disease, and these efforts have been crowned with success.

"During the first month or two that such a system is in force, the number of animals slaughtered as they first show signs of ailment would be considerable, but the effect would be speedily to diminish that number.

"What I am anxious to secure is a hearty co-operation between dairymen and professional men for the prevention of disease. At present they respectively engage in trials of strength, and the dairymen exult in their victories, when they see that the irresistible force of circumstances has enabled them to win a point against the sanitary reformer. I have therefore to ask the Medical Officers of Health maturely to consider the effect of thus legalising and controlling the traffic in diseased animals, and securing the co-operation of the market authorities. I regret to say that, at every visit I have paid to the Islington Cattle Market, many diseased cows have been disposed of amongst healthy animals.

"I still hope to see the day when, with the diminution of disease in town dairies, we may devise a profitable system for treating the sick in central depots; but the task is too gigantic to be hastily undertaken, and it is, I think, preferable to permit the disposal of animals at such a stage of disease as not much to interfere with the wholesomeness of their flesh. This sale, however, should only be permitted where preventive measures are carried out; and one reason for urging this is, that farmers and cowfeeders go on selling animal after animal, trusting that the disease may cease, whereas it continues.

"What is to be done next? In some cases it may be necessary to inoculate; in others, a few days tonic treatment to the still healthy animals may ward off the disease.

"The Veterinary Inspectors whom I wish to be employed by the cowfeeders should, when necessary, inoculate. I regard inoculation as best avoided when possible, but I know from experience that it can be resorted to with great benefit and with little danger; none but professional men should be employed to perform it."

Such, in general terms, is the legislation which Mr. Gamgee proposes for the dairy-stock of England. He would have all dairies registered; he would have trained veterinary inspectors; he would give to the inspector summary powers, in some cases, to inoculate, to segregate, to send to hospital, and (shall we say?) to order sale of any man's stock that may come under inspection. It is a bold suggestion; an incisive remedy. That it would go to the heart of the mischief, in a professional sense, is as clear as crystal; but the question is, Who shall do it? It is not until one sits down and begins to frame an act for the end designed that the difficulties appear; it is not until the workings of the most simple and

inoffensive act are cast up that the actual difficulties are presented; then they start forward with such force, that the argument, previously all on the side of the legislator, is pulled up to a dead stop. We feel, then, that the success of an Act such as is suggested would turn entirely, in its working, on the skill, the tact, the temper, the courage, and the forbearance of particular men, to whom the property of other men is confided—we mean, of course, the inspector. If the Government should raise up such men, how far, in the face of public opinion, would they do their duty? Or, if they did more than their duty, be it ever so little, how long would they be tolerated. There is an inspector at the present moment—a qualified inspector—at the New Cattle Market. What is the experience of his efforts? Does he enforce the strict letter of the law? Could he do so if he would?

We have put the matter before our readers in such way that they, equally with us, can consider it in all its bearings; they will, we doubt not, join us in saying that a better work, whatever may be the fruits of it, could not be done than is being done by the Edinburgh veterinary professor. Law or no law, his success is certain; for he is laying a basis of information on which the nation will build, until it proceeds to improvement, either by a temporary recourse to its legislature, or by bringing into action that nobler law which teaches the individual that he is doing best for himself when, without pressure, he is doing best for all, and which enforces fair dealing out of self and its true interests.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

THAT the remarks which have been made from time to time in this JOURNAL, relative to the Royal College of Surgeons of England, should be distasteful to the members of Council, we can readily believe; but we have yet to learn that anything untrue or unjust in that direction has been stated by us. We need, we hope, hardly say that our earnest desire in such matters is to be scrupulously correct; and that, should we by accident fall into an erroneous expression, we shall only be too thankful to any gentleman who will point out the error to us. In the meantime, and until such error be pointed out, we must be permitted to say that we have written nothing respecting the Council of the College which is not, to the best of our knowledge and belief, exactly true. We would beg to suggest to those gentlemen, members of Council, who, as we have heard, think the Council has been ill treated by us, that a great public corporation like the College of Surgeons is a most legitimate subject of criticism. If its rulers have managed and do manage its affairs according to the spirit of the charter, and according to the best in-

terests of the College, the public discussion of their operations will only make their good works the more conspicuous. But, on the other hand, if its management be defective, and inasmuch as this royal corporation is a great public body, it is simply and plainly the duty of the press to awaken it to a better life by pointing out its shortcomings. The time is gone by when men in office can effectively call out against public criticism, that it is hurtful to the feelings of those who manage public corporations. Every act committed by the Council of the College ought to bear the test of public questioning; and if it will not, we must be excused for calling that act a questionable one. We have the very highest respect for the members of Council as private individuals; but in that capacity we have here nothing to do with them. We are occupied in examining the doings of the managers of one of the most important medical corporations in the country, in trying them and weighing them in the balance of modern public opinion.

Every other medical corporation has undergone the modernising process; and most of them have had the wisdom voluntarily to undergo that process. Let our readers recollect what a character the College of Physicians bore not so many years ago for clubbism; and how unpopular the College was, as being the abode of cliqueism and retrogradism. But the College of Physicians had the good sense, and we may say the patriotism, to march with the times. It set its house in order, without waiting for the irresistible pressure of modern public opinion to open its eyes. It made great personal sacrifices; and assuredly it has had its reward, in being at this moment one of the most highly respected and popular medical corporations in the country. But the Council of the College of Surgeons has done none of all this. It has been running in the same groove as it ran in before it obtained its new charters, and has introduced none of those changes which were the very soul of the things thought to be gained under the new charter. Our duty has been to tell the Council the truth; viz., that the Fellows and Members of the College, and the profession at large, are not satisfied with its administration of affairs, and will not be satisfied, in fact, until the Council has gone through that chastening and discipline which every other corporation in the country has undergone. If the acts of the Council will not bear the force of our criticism, we suspect there is "something rotten in the state of Denmark". Moreover, no gentleman who is in a right position in office, in the Council or in the Court of Examiners, has a right, as a private individual, to take exception to our criticism. Public characters must not shrink from the trial of public criticism. It is childish to suppose that the pen of a journalist can damage the interests of a great and wealthy corporation, if all its acts be well on the

square. The discussion of the statements made in this JOURNAL, if founded on fact, and undeniable, as we say they are, must, as all impartial individuals will see, inevitably lead to the permanent good of the institution. Our business is with the body corporate; and if, in discussing its public interests, as our duty bids, we are forced to tread on private interests, it is a misfortune to us, but no fault of ours. It is the very nature of the constitution of the Executive of the College which causes our remarks to appear to fall hardly on individuals. In the College of Physicians, all the most important business of the College is transacted by the Fellows of the College; but in the direction of the affairs of the College of Surgeons, the Fellows have no power nor voice. The Council alone are the responsible managers of all its affairs; and on the Council, a restricted body, must, therefore, necessarily fall the weight—the odium and the praise—of all public criticism. Every act done by the Fellows of the College of Physicians is freely given to the profession; but the most important acts performed by the Council of the College of Surgeons—the election of Examiners and of President, the fees paid to Examiners, etc.—have heretofore been regarded by the Council as things with which the Fellows and Members of the College have not any concern. We are glad to find that these things are—some of them, at least—now to be told to the profession; and we shall, therefore, from time to time, still venture to make a few hints to the Council on matters touching the interests of the profession.

THE LATE SIR BENJAMIN BRODIE.

THE following extract from the biography of the late Sir Benjamin Brodie, which is shortly to appear, under the editorship of Mr. Charles Hawkins, appears in the introductory address of Mr. Henry Lee, lately delivered at St. George's Hospital. This excellent address has been published in full, at the request of the Hospital Board.

"In March 1808, I was elected Assistant-Surgeon to St. George's Hospital. In January 1840, after having filled the place of Assistant-Surgeon for fourteen years, and that of Surgeon for nearly eighteen years, I resigned my office. During these thirty-two years, the hospital, as far as my profession was concerned, was the greatest object of interest that I possessed. Except during the brief intervals of my absence from London, it rarely happened that I was not, some time during the day, within its walls. I was indebted to the opportunities which it afforded me for the best part of the knowledge which I had been able to attain. It had rendered my professional life one of agreeable study, instead of mechanical and irksome drudgery. Some of my happiest hours were those during which I was occupied in the wards, with my pupils around me, answering the inquiries, explaining the cases to them at the bedside of the patients, informing them as to the grounds on which I formed my diagnosis, and my reasons for the treatment which I employed, and not concealing from them my oversights and errors—and all this to kind and willing and only too partial listeners. My intercourse

with the students, and I may add with the patients also, was always to me a real source of gratification; and even now (many years afterwards) these scenes are often renewed to me at night, and events, of which I have no recollection when awake, come before me in my dreams. It was not without a painful effort that I made up my mind to resign an office to which I had been sincerely attached. In doing so, I was influenced by various considerations. One of them was, that I began to feel the necessity of diminishing the amount of my labours. Then I had long since formed the resolution that I would never have it said of myself, as I have heard it said of others, that I retained a situation of such importance and responsibility, when, either from age or from indifference, I had ceased to be fully equal to the duties belonging to it; and, lastly, when I saw intelligent and diligent and otherwise deserving young men around me, waiting their turn to succeed to the hospital appointments, it seemed to me that there was something selfish in standing longer in their way, when, as far as my own mere worldly interests were concerned, I had obtained all that I could desire. I have found no reason to be dissatisfied with the resolution which I had formed and the step which I took in consequence; yet, for some considerable time after I had taken it, I had many uncomfortable feelings, and I never passed by the hospital without something like a painful recollection that my labours there were at an end."

THE WEEK.

At the annual general meeting of the Herefordshire Medical Association, on the 7th inst., the following resolution was passed.

"That it is the opinion of this Association that the utmost caution should be used by members of the profession in expressing opinions about each other, but especially in giving evidence to the prejudice of any gentleman legally qualified to practise."

Two excellent clients, the City of London and St. Bartholomew's Hospital, are about to engage in a law-suit. The question between them is, What is the class of men eligible for election as Presidents of St. Bartholomew's Hospital? The question affects all the royal hospitals in the city. It appears that since 1549, an alderman has, until last year, always been elected President of St. Bartholomew's Hospital. Until 1854, the custom had invariably been to elect to the presidency of the city hospitals, the Lord Mayor or an alderman who had passed the chair; but in that year the Duke of Cambridge was chosen President of Christ's Hospital; and again, within the last twelve months, Mr. Cubitt was elected President of St. Bartholomew's Hospital. Taking alarm at this repeated innovation of an ancient privilege, the aldermen, backed by a vote of the Common Council, and with the purse of the corporation at their command, have thrown down the gauntlet to contest the point of right with the donation-governors at Westminster Hall. The contest is between the foundation- and the donation-governors, the latter of whom decline any longer, unless compelled by law, to limit their range of choice to the twenty-five or twenty-six gentlemen who form the Court of Aldermen.

We recommend the following extract from the war despatches from New Zealand to those noble gentlemen at the Horse Guards, who are inclined to regard the army surgeon as a sort of supernumerary, and who dub him a non-combatant :

" Surgeon-Major Carte, M.B., 2nd Battalion, 14th, the senior medical officer in the field, rendered prompt assistance to the wounded, many of whom he attended under fire."

We have always understood, that had it not been for the combatant power of a non-combatant medical officer, his Royal Highness of the Horse Guards might probably not have come out of Inkermann with a whole skin.

THE waters of the Dead Sea, M. Rouse tells us, contain 20·6 per cent. of saline matters.

M. Morel-Lavallée tells the Société de Chirurgie that he has now for some time used a case of pocket instruments, which are, with the exception of the knife-blades, made entirely of bronzed aluminium. These instruments are much cheaper than silver ones, are inoxidisable, and preserve their brilliancy though in daily use. The compound contains from 5 to 10 per cent. of aluminium, and has the colour and brilliancy of gold.

Whilst in England attempts are made to restrict the liberty of curing disease by non-licensed persons, in France the tendency is exactly the reverse. The world lives by contrasts.

L'Union Médicale admires our free method of teaching in England. "All medical schools enjoy a perfect liberty; and it is thence they draw the main source of their activity. They find in the imperious lesson of self-preservation, the most efficacious stimulant for the performance of their duties. The result is a noble rivalry between the schools—a war of progress. At this present moment, every professor on meeting asks his colleague, 'How many entries?' This stimulant of private interest it is which causes the success of all these private institutions."

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
BIRMINGHAM AND MIDLAND COUNTIES. [Ordinary.]	Medical Department of the Birmingham Library.	Thursday, November 12th, 1863.

SOUTH MIDLAND BRANCH: GENERAL MEETING.

THE autumnal meeting of the South Midland Branch was held at the Infirmary, Northampton, on Thursday, October 32nd, at 2 o'clock; W. PALEY, M.D., President, in the chair. Nineteen members and five visitors were also present.

On taking the chair, Dr. PALEY made a few remarks; and read letters from several gentlemen unable to attend

the meeting; viz., Drs. Richardson and Graily Hewitt, of London; Dr. Robertson of Clifton; Dr. Barker of Bedford; H. Veasey, Esq.; F. Cox, Esq.; H. Terry, Esq.; and W. H. Day, Esq.

The minutes of the last meeting were read by Dr. BRYAN.

Papers. The following papers were read:—

1. Rupture of the Axillary Vein from Dislocation of the Os Humeri into the Axilla. By H. Hailey, Esq., Newport Pagnell.

2. On the Danger of Employing Nux Vomica in habitual Apertients. By A. G. Osborn, Esq., Northampton.

3. Remarks on the Unsatisfactory State of Medical Charges. By W. H. Gatty, Esq., Market Harborough.

After this paper was read, considerable discussion ensued; and the following resolution was proposed by Mr. GATTY, and seconded by Mr. WATKINS (Towcester), and carried unanimously—

"That the remuneration of the medical profession should depend solely upon the time and skill devoted to their patients, without reference to the quantity of medicines supplied."

4. Case of Idiopathic Tetanus treated with Belladonna. By C. C. Balding, Esq., Sheffield.

5. Short Notes on Diphtheria. By T. H. Barker, M.D., Bedford. [This paper was read by Mr. Goldsmith.] Dr. Barker had had sixty-three cases; seven of which proved fatal.

A vote of thanks was proposed by Dr. FRANCIS, seconded by Mr. MASH, and carried unanimously, to those gentlemen who had furnished papers, with a request that they allow them to be published in the JOURNAL.

Medical Charges. Mr. WATKINS proposed—

"That the result of the application to members respecting medical charges be referred to the next committee meeting; and that Mr. Gatty's name be added to the committee."

Vote of Thanks. Dr. FAIRCLOTH proposed, and Mr. H. TERRY seconded, a vote of thanks to Dr. Paley, for his kindness and hospitality and the manner in which he has conducted the duties of president.

Dinner. The members then adjourned to the George Hotel, where a handsome dinner was provided.

N.B. Dr. Bryan will be glad to hear from each member of the Branch if he agree with the spirit of the resolution proposed respecting the remuneration of the medical profession, and will join the other members of the Branch in carrying it into effect.

THE LATE MR. JAMES PRICE OF HEREFORD. At the late annual meeting of the Herefordshire Medical Society, the following account of the late Mr. Price was given. "We have this year to lament the death of one member of our Association, James Price, Esq., the father of the profession for this city and county. Mr. Price was a native of Hereford, and apprenticed here. In his early professional career he saw much active service; he was appointed surgeon in the Artillery in 1804; he was at Buenos Ayres, under General Whitelock, in 1807, and then served for a time in India; he was at Corunna, under Sir John Moore, in 1809, and subsequently in the same year he took part in the ill-fated Walcheren expedition; in 1810 he began practice in this city, and continued doing so till within a few days of his death. For forty-five years he managed the Medical Book Society, with a steady attention that calls for our lasting gratitude; he passed a long and useful life amongst us; and it is not a little to say, that he has justly left behind him the memory of a kind and genial man, ever upholding the interests of the profession, and never better pleased than when he could promote true social friendship amongst his brethren."

Special Correspondence.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

A CASE of no small interest to members of the medical profession who are engaged in dispensary practice was tried on Wednesday, October 21st, in the Edinburgh Small Debt Court, before Sheriff Jamieson.

A woman, of the name of Isabella Mackenzie, sued Dr. Gordon, the apothecary of the Royal Public Dispensary, for £12 damages for injury to her health, caused by the improper dispensing of a prescription which had been prescribed by Dr. Strethill Wright, one of the physicians to the Dispensary.

In order that our readers may understand the case in question, we must inform them that there are in Edinburgh two public dispensaries; one situated in the old town—the Royal Public Dispensary in Richmond Street; the other situated in the new town, and therefore called the New Town Dispensary. These institutions have an excellent staff of medical officers, who gratuitously offer their services, and some of whom attend daily at certain hours. They are assisted by medical students, who are usually in the third or fourth year of their studies, and who go to the houses of those patients who are unable to attend the Dispensary. There is, in addition, a midwifery department, and a pharmaceutical laboratory, where the prescriptions ordered by the medical officers are dispensed gratis. In this laboratory, all prescriptions are dispensed by medical students, under the superintendence of Dr. Gordon, who also instructs them in the performance of such minor surgical operations as cupping, tooth-drawing, etc. The institution, like its fellow in the new town, has, therefore, a somewhat important office in connexion with the Medical School, as nearly every medical student is required to attend the dispensary practice for six months, and practical pharmacy for three months.

It appears that, at the Old Town Dispensary, it has been the practice to give out the medicine without any labels; and that mistakes have been of very frequent occurrence. We have been informed of patients who have swallowed the lotions which had been prescribed for ulcerated legs, and have applied to these the cough mixtures which they ought to have taken internally.

The pursuer in the present action, a woman of delicate constitution, when suffering from some slight gastric disorder, applied to the Royal Public Dispensary, and was seen by Dr. Wright, who ordered her some powders containing ten grains of calumba and ten grains of nitrate of bismuth, of which she was ordered to take one three times a day. The student who dispensed the prescription, unfortunately, substituted ten grains of calomel for the ten grains of calumba. The poor woman took one of the powders, and was very soon severely purged, and suffered from vomiting. Not attributing the symptoms to the medicine, she persevered in its use, and took a second and a third dose. In consequence, she suffered from continued purging and vomit-

ing, and was subjected to the annoyance of pretty profuse salivation.

Dr. Strethill Wright deposed to having written the prescription for the powders. He explained that the mistake must have arisen from ignorance or gross carelessness; for no one at all conversant with the *materia medica* could have read “calomelanos” instead of “puly. calumb”, however illegible the word “calumb.” might have been. Dr. Wilson and Mr. Milburn testified to having seen the woman after she had taken the powders, and to have found her suffering from salivation. Dr. Wilson deposed to having ordered opium to check diarrhoea, and a borax lotion for the mouth. Mr. Milburn, her usual medical attendant, stated that the woman had been seriously inconvenienced by the powders which she had taken, although they had not caused any permanent injury. Other witnesses were called to prove the identity of the powders which the woman had swallowed, with the powders made up at the Dispensary.

For the pursuer, it was urged that she had undoubtedly suffered not a little through the mistake which had been committed; and that she had been obliged to keep her bed, and to employ some person to do her household work. It was urged that, as Dr. Gordon was the person appointed by the directors of the institution to superintend the dispensing of prescriptions, and as he received, as a remuneration for this office, one-half of the fees paid by the pharmacy pupils, he was responsible for any mistakes which might be committed.

On the part of the defendant, it was pleaded, that the number of students attending the Dispensary was so great, and the patients applying for relief so numerous, that it was absolutely impossible for one person to superintend the dispensing of every prescription. It was urged that, in such an institution, mistakes must necessarily sometimes occur; and that, in availing themselves of their aid, the public ought to make up their mind to run the risk. In conclusion, it was pleaded, that any legal responsibility which might be incurred would fall upon the directors of the Public Dispensary, and not upon Dr. Gordon.

The learned Sheriff commenced his very lucid address by stating his opinion, that undoubtedly Dr. Gordon was the person legally responsible for the mistake which had occurred. He repudiated the ideas which had been upheld by Dr. Gordon's legal adviser, that public institutions such as the Royal Public Dispensary are not to be held responsible for any injury resulting from the improper dispensing of prescriptions. Such institutions, in soliciting the aid of the public by subscriptions, incurred some responsibilities towards the public from which they could not shrink. In this case, he considered the question of legal responsibility was absolutely free from doubt. In considering the question of damages, it was important to inquire whether any permanent damage, or only temporary inconvenience, had been sustained. It had been clearly shown that no permanent damage had been inflicted. It was also important to learn what degree of blame had been incurred by those who had committed the mistake. Absolving Dr. Gordon from any personal neglect, he expressed his opinion that there had been great carelessness. Instead of a tonic

medicine, the poor woman had been subjected to the action of a fearful purgative, which had caused her great temporary suffering and great debility. Although absolving Dr. Gordon from any personal neglect, he must hold him legally responsible, and give a verdict for the plaintiff. Damages £3:3, with costs.

Reports of Societies.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

Meeting at Edinburgh, October 1863.

DEPARTMENT OF PUBLIC HEALTH.

R. CHRISTISON, M.D., F.R.S.E., President, in the Chair.

Medical Reform. By W. OGLE, M.D. Dr. Ogle's motto was, "Prevention better than cure"; and his object was to show how easily this maxim might be reduced to practice by making the medical man as much as possible responsible for the health of his patient. In order to this, a change was necessary in the form of the remuneration given to the medical men for their services. He pointed out the defects of the "fee" and of the "contract" systems—the two extremes; and argued that the truth in this, as in other cases, consists in an adoption of that which is good in each, and the rejection of that which is faulty; and that this is easy, for that the faults of the one are corrected by the excellencies of the other. The plan recommended was to make the fee the exception—to pay the doctor an annual sum for all ordinary work, with additional fees for extraordinary work. Ordinary work was defined to mean all such work as might be notified to the doctor at an early hour of the day in which his services were required, leaving it to him to arrange the time of the visit to fall in with his other engagements. Extraordinary work was held to be such exceptional services as calls to attend immediately or at a time fixed absolutely by the patient. This arrangement, it was considered, would enable the doctor to take charge of the health of the patient, and would, even in time of sickness, make the interests of the physician and his patient one and the same. Dr. Ogle argued, from the almost universal repudiation of the system of "payment per bottle", and from the dislike manifested both by patient and doctor of a rigid adherence to "payment per visit", that the time has come when such an alteration as the one proposed would be generally acceptable.

On the Contamination of Water by the Imperfect Drainage of Towns and Villages. By STEVENSON MACADAM, Ph.D. He said that for some years back he had been engaged in investigations relating to the sanitary conditions of towns and villages; and his attention had been especially directed to the influence of the want of drainage on the water employed in drinking and for culinary purposes. The majority of towns and villages carried out a system positively unwholesome and detrimental. In the better class of dwellings, each house was provided either underneath it or in a small back garden with two holes. One was a well with a pipe leading to the house with drinking water; and the second was a cesspool with a pipe leading from the house. The well was for the most part dependent for its supply of water on the percolation of water through its sides or bottom; and as the cesspool was not many yards off, the liquid which it contained would ooze through the sides, and enter the well. The injurious effects of this were obvious. There was not much danger whilst the drainage from the houses

was fresh; but when putrefaction set in, it became directly injurious to health. The surface drainage of towns and villages had also a very evil effect, both upon water and the atmosphere. As a means of remedying these evils, the writer proposed that the Police Act of 1862 should be made compulsory, so far as regards these matters.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 7TH, 1863.

HENRY OLDHAM, M.D., President, in the Chair.

Communications. Mr. SEQUIERA exhibited an Anencephalous Monster, with photographs.

Dr. DRUITT read a case, and showed drawings, of Secondary Syphilis after Vaccination.

Dr. LEISHMAN read a note of Associated Hydrocephalus and Spina Bifida in a child nine months old.

A case of Dilatation of the Os Uteri by the Sea-tangle (*Laminaria digitata*) to procure Abortion was read by Dr. PRICHARD.

Diseased Cervix Uteri Removed by Ecraseur. Dr. GREENHALGH exhibited two specimens of diseased cervix uteri, which he had removed that afternoon with the wire *écraseur* of Weiss. The first, a specimen of epithelial cancer, involving the whole of the posterior, and extending to the anterior lip of the womb, was removed from a married woman, under the influence of chloroform, and scarcely any blood being lost.

The second was a specimen of simple hypertrophy of the neck of the womb, two inches and a half in length, and five and a quarter in circumference, taken from a married woman, aged 41 years, who had one child twenty years ago. Her labour was lingering, and her recovery protracted. She complained that about seven years ago her "womb gradually came down," since which it had never returned, whether in the upright or recumbent position. She had experienced so much local discomfort, and it was such a barrier to sexual connection, that she begged that something might be done for her relief. No blood was lost during or after the operation.

Dr. Greenhalgh remarked that this affection, uncomplicated with procidentia uteri, is of rare occurrence, and is frequently taken for and treated by pessaries as the latter affection, to the great annoyance of the patient and aggravation of the disease. He had now operated upon four such cases with perfect success.

Dr. BARNES had used the instrument of Mr. Weiss for the removal of fibroid polypi in several cases very successfully; but he preferred the instrument of Dr. Hicks, which was less cumbersome. With regard to the method of removing the vaginal portion of the cervix uteri, he thought the operation of Dr. Marion Sims—which consisted in amputating by a cutting instrument, and covering the stump by flaps of mucous membrane brought from behind and before—had a considerable advantage over ablation by the *écraseur*. By Marion Sims' operation the healing was much accelerated, and a better os was preserved. He (Dr. Barnes) had performed the operation with a most satisfactory result.

Dr. ROUTH had also operated, and successfully, in several cases; but while he admitted the usefulness of the *écraseur*, and its advantages in preventing hæmorrhage, he doubted if it might not subsequently preclude impregnation. The cicatrising always left the os puckered and contracted, so as to give rise occasionally to dysmenorrhœa. None of his patients, nor of those whom he had seen operated upon, so far as he knew, had had children or even miscarriages afterwards. This might be accidental, on which the experience of Fellows might throw a new light. If, however, barrenness followed the use of the *écraseur*, Dr. Sims' operation, which enabled the accoucheur to retain the os in a patent condition, was to be preferred.

Dr. BRAXTON HICKS, in the course of construction of his instrument, had adopted the drum and endless screw as used by Weiss, but had afterwards discarded it, because it was found that the length of wire-rope which could be used by his was practically as long as required. He had also removed many times the cervix uteri by different *écraseurs*, without any untoward symptom. He thought that the occlusion of the os uteri, if it occurred, might be overcome by a bougie as easily as in the operation of Marion Sims.

Dr. GRAILY HEWITT considered the *écraseur* objectionable in cases of hypertrophy of the cervix where the bladder was drawn downwards with the cervix, inasmuch as there was a liability to injure the bladder. He had seen cases where the portion of the cervix situated above the vagina was greatly elongated, and in which the *écraseur* could not have been used, for the above-mentioned reason. In the other class of cases, where the hypertrophy was limited to the vaginal portion of the cervix, the *écraseur* could be safely and advantageously used.

CASE OF CHRONIC HYDROCEPHALUS.

BY HENRY MADGE, M.D.

The subject of the notes was the seventh child. Of the six brothers and sisters, five died from convulsions before they were a year old. The surviving sister is troubled with scrofulous sores. After birth the patient thrived very well up to the ninth month. Teething then commenced, accompanied with convulsions. There were severe brain and meningeal symptoms for several weeks; and, on their subsidence, the head was perceived to be enlarging. Measurements of the head were taken from time to time, which showed that in three months its circumference had enlarged from nineteen inches to about twenty-three inches; the other measurements, from ear to ear across vertex and from root of nose to occipital protuberance, undergoing corresponding changes. Measurements of the fontanelles were also taken, and observations made on the cranial sutures. After arriving at the above dimensions, the head gradually lessened in size, and became stationary at about twenty-one inches in circumference. Before the illness, the child showed signs of intelligence in the usual childlike way; subsequently the little intelligence she had entirely disappeared, reappearing after a blank of several months in a low form—namely, that of imitating sounds, followed, at a later period, by mental manifestations of a somewhat higher order. The general health throughout was but little affected. She is now three years and a half old. The size and shape of the head have remained the same for some time past; but the body grows rapidly. Some of the faculties are particularly active. The treatment most relied on was the administration of short courses of mercury with chalk, and the application of blisters to the nape of the neck and behind the ears, kept open for a very long time.

The paper was accompanied by diagrams showing the changes effected in the size and shape of the head during the progress of the disease.

Dr. BALLARD did not agree with the author in attributing the disease to any diathetic error inherited from the parents, neither did he believe that the irritation of teething had any effect in causing the disease. He believed that oedema of the brain, which was the pathological condition of convulsive diseases of infants, resulted from a state of malnutrition, the consequence of a disorder of the stomach and intestines, which was caused by an excessive secretion of gastric juice, continually produced by reflex action when a child has to suck excessively to obtain its food, and which effort he designated "fruitless sucking." The green diarrhoea of infants, and the chronic state of diarrhoea which always precedes hydrocephalus, are the evidences of the existence of this injurious condition. The treatment consists in arresting the diarrhoea by attention to the sucking,

feeding the child well upon milk, and treating the symptoms of pressure on the brain in their early stages by the abstraction of blood by leeches; the symptoms indicating the use of leeches being repeated acts of vomiting, or vomiting during sleep or any form of fit. He was of opinion that had the case described in the paper been treated on similar principles the result would have been as favourable.

Mr. OWEN, in agreeing with Dr. Ballard in regard to some of the points on the feeding, differed from him in the suggestion of free and continuous leeching in a case like this, where a tubercular diathesis evidently existed.

Dr. BARNES submitted that an absolute etiological theory ought to apply to all the cases of the disease. Now, the accoucheur knew well that hydrocephalus was a congenital disease; that it arose *in utero*.

Dr. ROUTH believed Dr. Ballard's views to be important and true in many cases. He had repeatedly seen fruitless sucking from an exhausted mother, or from the sweetened piece of flannel to keep them quiet by ignorant nurses, produce diarrhoea and green stools, and, after a time, head-symptoms and hydrocephalus. But he did not say this was *always* the result observed. Dr. Madge's paper was important as illustrating—first, the effect of a strong tubercular diathesis in inducing hydrocephalus, spite of his skilful supervision and treatment; secondly, as proving by actual measurement the marked diminution of the fluid effused. The diminished size of the head (as indeed at one time was stated by the parents of this very girl) is too often erroneously inferred, because, owing to the growth of the other parts of the body, it seems to be smaller. He thought, however, these cases would bear calomel to a larger extent than given by Dr. Madge. He (Dr. Routh) instanced an example similar to the present, in which idiocy was impending, where ten grains of calomel one day and five the next were given successively for three weeks. A cure resulted. The young man was now alive and full grown, and with intellect unimpaired. Without recommending these excessive doses, still he thought full doses of calomel were often well borne in chronic hydrocephalus, appearing to act in this affection chiefly through the kidneys.

Dr. GRAILY HEWITT congratulated Dr. Madge on his paper, and on his success in the treatment of the case. Some years ago he had himself succeeded in arresting the disease in its acute stage, and the patient completely recovered. The remedies he had used were very extensive counterirritation over the scalp by means of tartar emetic, and liberal administration of stimulants.

Dr. MADGE, in reply, wished to state that he had not brought the case forward as anything extraordinary, but simply as an illustration of a rather common form of disease. Dr. Ballard had given an opinion that the condition of the patient was caused by "fruitless sucking" and by "overlooked or neglected diarrhoea," and that the treatment had been altogether wrong. Dr. Madge considered there were no grounds whatever for such an opinion. It would be difficult to say what amount of so-called "fruitless sucking" had taken place in this or in any case, but it was a mere assumption to say that it had taken place at all, and a still more groundless assumption—as it was removed from all scientific and reasonable probability—that "fruitless sucking" could have caused such grave symptoms as those recorded in the paper. These symptoms could be explained on much more rational principles. The evils of fruitless sucking, he thought, had evidently been greatly exaggerated. The theory had doubtless been erected on a few exceptional cases. As to diarrhoea, there was a marked absence of it in this case; apertients had been frequently necessary—a state of things usually accompanying nervous disorders, or a predisposition to them. He had heard nothing that evening which would induce

him, in a similar case, to deviate much from the plan he had adopted. There was no doubt much to deplore in the present condition of his patient, but the result was better than could have been anticipated under the circumstances.

LIVERPOOL MEDICAL INSTITUTION.

OCTOBER 13TH, 1863.

R. GEE, M.D., Vice-President, in the Chair.

New Splint. Dr. RAWDON shewed a splint he had contrived for fractured thighs and legs. It was made of iron, and so arranged that the foot-board, the thigh-piece, and the part that supported the leg, could all be lengthened as much as might be necessary, and the knee could be adjusted to any angle.

Poisoning by Bites of Flies. Mr. HAKES referred to a Circular of the French Government to the Prefects of Departments, concerning poisoning by flies, and mentioned a case he had recently had in which a lady had suffered from severe inflammation after a sting on the knuckle from a fly.

Dr. BARRETT had also recently had a case where erysipelatos inflammation with some constitutional disturbance arose from the same cause.

Mr. BAILEY and Dr. SKINNER mentioned similar cases. *Disease of the Elbow-Joint.* Mr. FLETCHER showed two specimens of disease of the elbow-joint, removed by excision. In one case, the cartilages were nearly destroyed, and in both there was a considerable degree of ankylosis. In both cases the separation of the ulnar nerve gave him some trouble. The cases are doing well.

Diverticulum of the Bladder. Mr. HAKES shewed a bladder with a large diverticulum from an old man who had undergone the operation of lithotomy at the Northern Hospital. He had been admitted on account of great irritability of the bladder; the stone was detected, and after gradually dilating the urethra, Mr. Hakes partially crushed the stone in the usual manner. The patient gradually sank, and died about ten days after the operation. The bladder was found, after death, to be slightly inflamed, and excessively thickened, and connected with it by an opening that would admit the little finger was this large diverticulum, larger than the bladder itself. Mr. Hakes read some extracts from Rokitsansky, on the nature and causes of these diverticula. The stone had been broken into three portions, and one of these into smaller fragments; the greater part of the stone was found in the bladder, a small fragment only in the diverticulum.

Dr. NOTTINGHAM said that long before Rokitsansky's work appeared, Civiale had written fully on this subject. In some of these cases we find that, when the patient has passed all the urine he can by his own efforts, if even pressure be made on his abdomen he will soon afterwards pass a great deal more. This state of things increases the difficulty in cases of lithotomy, and a great deal of the fluid injected escapes into the diverticulum. Again, if the stone had lain in the diverticulum itself, neither aperture nor stone might have been detected; in such cases it has even happened that the opening has closed, and the symptoms of stone have disappeared.

Mr. FLETCHER, on examining the specimens, perceived another and very much smaller diverticulum near the neck of the bladder.

The CHAIRMAN questioned very much whether the great thickening of the bladder was entirely due to muscular hypertrophy, and not in part to a degeneration of the tissues that might have something to do with the formation of these pouches.

Excision of the Knee. Dr. NOTTINGHAM shewed a specimen of disease of the knee-joint, which he had excised. The patella was the portion most affected, being scooped out into a mere shell; the ends of the

femur and tibia were comparatively sound, and the cartilages not very much affected. The patient, aged 8, is doing very well.

Amputation of the Thigh for Malignant Disease. Dr. NOTTINGHAM also shewed the thigh-bone of a patient who had undergone amputation of the thigh on account of a large malignant tumour growing in the upper part of the popliteal space. The artery and vein were found running through the diseased mass. The tumour had been of rapid growth and accompanied by much pain although the knee-joint was not affected. In the veins below the tumour many firm fibrinous plugs were found. There was a great mass of blood in the tumour. The patient is going on well at present. His family had a decidedly tubercular taint, but there was no history of hereditary cancer.

Tape-Worm Expelled by Goose Oil. Dr. SKINNER shewed a tape-worm which had been passed by a child about seventeen months old, after a dose consisting of two dessertspoonfuls of goose-oil administered by some old woman. The dose was given at night, and the entire worm, ten feet and a half long, with its head, was expelled dead next morning.

Mr. BAILEY had heard of goose-grease being so used before; but never of its having been successful. Might not its success in this case have been a mere coincidence?

In answer to Mr. STEELE, Dr. Skinner did not know whether the child had ever sucked or eaten raw meat.

Dr. RAWDON, considering the size of the worm and the age of the child, thought Dr. Skinner ought to be well assured of the credibility of his informant.

Dr. STOKES once had a child brought to him, three months old, that had passed seven and a half feet of tape-worm; the child had never had anything but its mother's milk.

Dr. NOTTINGHAM said there was an old Lancashire song in praise of the virtues of goose-grease. Might not the depraved appetite caused by the presence of the worm in these cases lead to the sucking raw meat, etc., and thus cause the disease to be attributed to that habit?

Dr. BARRETT said the opportunity of tasting seemed to have more to do in these cases than the depraved taste. Butchers and small shopkeepers seem very subject to this complaint; as an illustration, he had had the three assistants of one butcher under his care with tape-worm.

Mr. BAILEY had seen these entozoa in slaughter-houses in young calves, lambs, etc.

Wound of the Knee-Joint. Mr. LOWNDES read a case of wound into the knee-joint. A man, aged 29, was admitted into the Northern Hospital on September 8th, 1863, with a small contused wound, just on the outer side of the ligamentum patellæ of the right leg, caused by a blow from a winch handle. The knee-joint was rather swollen, and when it was pressed a sero-sanious fluid escaped freely from the wound. The wound was about an inch and a half in length, and ragged, and its edges were bruised; a probe passed into it buried itself in the middle of the joint. The wound was covered with a double layer of lint smeared thickly with Canada balsam, and this secured with strips of plaster. The leg was then placed on a Macintyre's splint; and he was ordered to have half a grain of acetate of morphia night and morning. Low diet and beef-tea were ordered. September 9th, he was going on well; there was no pain, and very little swelling; the skin over the knee was rather hot. Some of the balsam having oozed out, a fresh piece of lint smeared with more of the balsam was laid over the other dressing. No inflammatory action came on. The leg was taken off the splint at the end of a fortnight, and gentle motion used. The original dressing was not removed until October 5th, eleven weeks after the accident; the wound was found to be completely healed, and covered with a smooth delicate cuticle; there still seemed to be some slight effusion into the joint. On

October 9th, the man was allowed to go home; he was free from pain, and able to walk without a stick. Mr. Lowndes said in this case we had to deal with a ragged wound into a joint, with a thin sanious fluid oozing from it. There seemed no hope of obtaining union by the first intention, and the only chance of excluding air from the joint seemed to be by excluding air from the wound entirely, and trusting to the process of healing under a scab. Mr. Lowndes shewed the scab formed by the original dressing. He alluded to the great importance in cases of compound fracture and dislocation of closing, when possible, the external wound; for this purpose lint dipped in blood is often sufficient and has long been in use, and in severe cases this balsam might also be tried; it adheres firmly to the surface around the wound, excludes the air, and allows the effused fluids to congregate into a scab. He concluded by some extracts from Mr. Paget's *Surgical Pathology*, on the process of healing under a scab.

Mr. GILL mentioned a case he had had in which a gentleman received a compound fracture of the leg, from the kick of a horse; he applied lint soaked in blood to the wound, and placed the limb on a Liston's splint; at the end of four weeks the dressing was removed and the wound found healed, covered over with a delicate film. The bones united quickly, and a good recovery was made, although its progress was interrupted by a fall down stairs which re-fractured the bones.

HARVEIAN SOCIETY OF LONDON.

OCTOBER 15TH, 1863.

HENRY W. FULLER, M.D., President, in the Chair.

Proposed Court Medical. Dr. STEWART brought forward a notice of motion, to the effect—"That the President, Vice-Presidents, and Council of the Harveian Society, for the time being, shall be, and hereby is, constituted a Court Medical, for the hearing, consideration, and determination of all questions of professional status or etiquette, affecting any member or members of the Society; and of such questions as shall be specially referred to it by any member or members."

Leucocythæmia. The PRESIDENT mentioned that there is at present in the wards of St. George's Hospital a patient who is a well marked example of the disease called leucocythæmia. He invited any member desirous of seeing the case to visit the wards.

Dilatation of Pupil from Henbane. Mr. CURGENVEN mentioned a case of dilatation of pupil in a patient of his who was taking tincture of henbane.

Mr. HART remarked that this was a well-known property of the family of *Solanaceæ*.

Reflecting Ophthalmoscope. Mr. J. Z. LAURENCE exhibited his recently invented reflecting ophthalmoscope. Mr. Laurence first showed on the eye of a rabbit that the luminosity of the fundus oculi may be readily observed by interposing a sheet of plate glass at the proper angle between the eye and a lamp-flame. An observer regarding the surface of the glass at the proper angle sees the illuminated pupil. It was then shown that the aerial image, formed in the focus of a convex lens, may be at once rendered obvious by its reflection from a plate of glass placed beyond the focus of the lens. In this way, Mr. Laurence succeeded in demonstrating the optic nerve, retinal and choroidal vessels of the rabbit's eye, by the reflection from a sheet of glass of their real image formed by a convex lens (of two or three inches focus). An ophthalmoscope on this principle consists, then, chiefly of two parts: 1. Of a convex lens; and 2. Of a plate of glass. In this way, Mr. Laurence stated he had observed the minutest details of the human fundus oculi; but, at the same time, he wished to impress on the members of the society, that he had

only succeeded in establishing the principle of his instrument; there remaining much to be done in the details of its construction before it would become of general practical utility. Mr. Laurence stated that the reflecting ophthalmoscope possesses also autophthalmoscopic properties.

Mr. LAURENCE exhibited, in a patient, a very striking instance of pulsation in the retinal veins, of which, in a less degree, he had latterly observed several other instances.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, OCT. 16TH, 1863.

A. W. BARCLAY, M.D., President, in the Chair.

INAUGURAL ADDRESS.

THE PRESIDENT congratulated the members on the commencement of another session, expressing his hope that the meetings of the Society would tend to the development of the warmer and more kindly feelings of professional brotherhood in the prosecution of scientific research. He then referred to his own position as medical officer of health for the same district; and went on to select from the sanitary department two subjects for their consideration that evening. In speaking of this department of practice, he wished to protest against the idea that there was anything antagonistic or uncongenial to ordinary practice; and to express his conviction that the best practitioners were the best sanitarians, and that, in fact, all that had been done was only the carrying out of principles in which all had been educated and all had believed. There was, on the one hand, the great disadvantage that the so-called sanitary reformers rode their hobby to the very verge of charlatanism; but, on the other, it must be admitted that their earnestness and zeal had hastened forward the adoption of measures which might otherwise have been indefinitely postponed. The first subject was small-pox and its prevention by vaccination. The speaker asserted broadly his conviction that the benefit of vaccination was not wearing out or becoming less operative. He called the attention of the meeting to what may be called, in the language of Sydenham, "the epidemic influence"; contending that to the greater or less intensity of this influence is due the more or less spread of the epidemic. He cited the instance of cholera as a type in which, whatever the theory of its propagation, every one admitted, whether they believed in atmospheric influence or in accumulation of dirt, foul privies, and bad drains, as being chiefly concerned in its spread, or looked to the water supply as the medium; yet the very same conditions of air, earth, and water, are found without the spread of cholera when the epidemic influence is absent. In the same manner, proof of such an influence was seen very distinctly in the rise and fall in the number of patients in the Fever Hospital suffering from true typhus or epidemic fever, while the number of those labouring under typhoid or endemic fever was comparatively stationary. He further stated, from his own knowledge of the fact, that Chelsea parish was much better prepared against small-pox last year than it was three or four years ago, when an epidemic threatened; but that the cases had been far more numerous now than they were then. He expressed his conviction that the Compulsory Vaccination Act failed entirely as a measure of compulsion, and regretted that the labours of a committee which had sat for some time, and suggested very slight emendations which would have made the Act perfectly workable, had been entirely ignored. The second subject was the adulteration of bread, which had recently attracted much attention in the district of Chelsea, in consequence of a report which he (the president) had made to the Board of Guardians about the adulteration of the workhouse bread. He explained the evils arising from the adulter-

ation; and detailed the method which he had adopted for its detection. At the same time, he exhibited a colour-test, which was, to a certain extent, useful as a rapid mode of raising a suspicion of the presence of alum. A portion of the bread which had been the cause of his first report was submitted, along with other samples, to the test, and indicated a very remarkable change of colour.

Correspondence.

IRIDECTOMY.

LETTER FROM WILLIAM BOWMAN, ESQ., F.R.S.

SIR,—I. You have invited discussion on the subject of Iridectomy in Glaucoma; and Mr. Syme, after what he no doubt regards as a full consideration of this important question, has "no hesitation in saying, that it has always seemed to him an entire delusion accepted for the cure of blindness"; that the operation has been proposed "in a hopeless disease" "as promising merely to afford some chance of relief"; and that, therefore, the terrible consequences so often resulting from the operation have not been "held to counterbalance the benefit claimed by patients so fortunate as to escape these dangers; benefits alleged, but illusory, like those which the incurably deaf may fancy for a time they receive, when they have paid their money and suffered pain, and do not like to confess that their object has not been accomplished." "Iridectomy will, therefore," he adds, "I trust, soon disappear, not only from surgical practice, but from surgical language."

2. The reputation of a man so eminent as Mr. Syme is, in some measure, the property of his countrymen; and I may, therefore, be excused if I endeavour to explain that some part of this hard language, directed apparently against one of the very chiefest improvements in modern surgery, may be acquiesced in by those who prize the operation most; and if I also express a hope, and even a confident expectation, that when the distinguished Scotch surgeon shall have more fully considered the subject, he will acquiesce in the retention both of the name and the practice of iridectomy in glaucoma. I shall expect this hereafter, from his well known honesty, candour, and courage, in the avowal of his convictions.

3. His whole misconception lies in a single word, but an important one, *glaucoma*. By *glaucoma*, Mr. Syme means the *last, hopeless, absolute stage, when all perception of light is lost and the tissues of the organ are spoiled*. This is probably what most medical men reading these lines would also imply by the term. I never heard of any proposal to perform iridectomy in such cases under an expectation of restoring sight. In Mr. Syme's view, therefore, of the worthlessness of iridectomy for the cure of glaucoma, all surgeons may agree.

4. By *glaucoma*, however, the modern school of practitioners understands something *not different, but much more comprehensive*. We include under this term, what as men of science and as practical men we are bound to embrace; viz., *the whole course and the several varieties of disease, leading to that last hopeless stage of extinguished sight and disorganised tissues*. We include these stages, more or less rapid, complicated more or less with inflammation, or with other varieties of ocular disease, and we include also Mr. Syme's "glaucoma", the hopeless "absolute glaucoma" of Von Graefe, the "glaucoma" of our forefathers.

5. Mr. Syme seems to ignore the idea that glaucomatous diseases are a *class comprising various types, all characterised by augmented tension of the eyeball, under which the retina is compressed and destroyed*; that to lessen this tension is to allow the nerve to retain, often

to recover, some of its decaying function; and that the *most positive proofs are daily occurring, that iridectomy has this effect of relieving tension*. I need not say how much pleasure it would give me, should Mr. Syme be in London, to show him cases of this description.

6. I cannot charge myself with having omitted to call the attention of medical men to the recent all-important advances in our knowledge of glaucomatous diseases. A paper of mine, read before the meeting of our Association in London in 1862, and published in this JOURNAL on the 11th of October in that year, will show what has been done in this direction, and it contains references to previous writings. I now venture to repeat, that it becomes the duty of all medical men who, from the nature of their practice, are liable to be consulted by patients suffering from impairment of sight which may be glaucomatous, to acquaint themselves with the subject, so far as to be alive to the danger threatened, that a timely remedy may be applied. Not a week passes, but I have to deplore the absence of this knowledge on the part of practitioners whose attention does not yet happen to have been called to the point; and I propose, with your permission, at an early day, to state, in a simple form, what are the symptoms, and that state of the eye which should awaken their suspicions.

7. Every candid and liberal mind must rejoice to think that a real remedy has at length been found for arresting a disease hitherto producing a large proportion of the blindness from which mankind suffers; and instead of obstructing the path of those who are honestly working out an important question of science and humanity, will encourage them to define still more the natural history of the disease, and the indications for the operation under its various stages and complications.

The question is no longer, Does iridectomy arrest glaucoma? but, Under what limitations and at what stage is it to be performed? and how best are its advantages to be secured? These must remain the questions until some other and better remedy shall be discovered. Meanwhile I may add, in the emphatic language of Professor Donders of Utrecht, "Humanity urgently requires that prejudice and ignorance should no longer oppose the use of iridectomy in glaucoma."

I am, etc., W. BOWMAN.

5, Clifford Street, W., October 28th, 1863.

[We need hardly say that we shall gladly receive any communication on the subject of iridectomy from the pen of Mr. Bowman. We must, however, observe, that Mr. Bowman's letter bears in it proof enough for the necessity of the discussion of the subject of iridectomy which has been invited by this JOURNAL. Mr. Bowman tells us that every week he has to deplore the consequences of the ignorance of practitioners concerning the conditions of the eye which demand this remedy; and he admits that the "natural history of the disease and the indications for the operation" have yet to be fully worked out. From this admission two important conclusions clearly follow: 1. That the conditions of the eye which demand (as it is asserted) the performance of iridectomy are unknown to practitioners at large, and are, therefore, we may suppose, not very patent to, not easily recognised by, ordinary observers; and 2. That as iridectomy is manifestly a very serious operation, involving the possible destruction of the visual apparatus, it seems certain (reasoning on the data of its warmest supporters) that it is not, in the present state of our knowledge, an operation which can be safely trusted to the hands of other than the most skilful and experienced observers. In other words, the profession as a body have yet to learn the true meaning and value of the operation. EDITOR.]

SIR,—I clapped my hands with delight when I saw this subject lately started in our JOURNAL; for I hoped

that it would be well discussed, and that I should learn on what grounds it is practised. After all, it is the *rationale* that we want; for the "results", as they are called, are not enough by themselves, in such a disease as glaucoma; one in which there can be no cure, and the most that can be said is, that more or less benefit was got.

I can suppose that many of your readers feel as I do in the matter; especially if there are any among them who, like myself, treat many eye-diseases in general practice.

I have asked in vain among many of my brethren for the solution of this glaucoma riddle; and I do wish that Mr. Wordsworth had given the solution, and not referred your readers to the German oculist, and, as appears to me, evaded the question. Let me beg you, sir, to try and prevail on some London man who practises iridectomy, to give us the facts, pathological and physiological, on which the operation is founded. Surely this can be done without altercation and hard words.

The general impression among those in my immediate circle respecting the operation, is tolerably expressed in Mr. Syme's letter; but really we are open to conviction.

I find that Mr. Wordsworth contradicts two of your correspondents in their statement, that iridectomy is the same operation as excising a portion of the iris for an artificial pupil. This is a strange difference of opinion on a plain matter of fact. Soon after iridectomy was taken up in London, I had occasion to write to a London surgeon about a patient. I asked him, "What is iridectomy, and how does it act?" He answered, "It is a remarkably simple operation and a great discovery. We remove a portion of the iris, as we do when we want to make a large lateral pupil, generally, however, taking more." But the principle was not alluded to.

Perhaps the term glaucoma is used in a different sense from what it used to be. I was taught to consider it in an advanced state, as disease of the retina, the choroid, the vitreous humour, the iris, and often of the cornea and the lens; also, that the sclerotic coat was generally affected. I am, etc.,

A GENERAL PRACTITIONER.

Exeter, October 28th, 1863.

ARMY MEDICAL GRIEVANCES.

SIR,—In the impression of the *BRITISH MEDICAL JOURNAL* for Oct. 17th, there is an article entitled "Army Medical Grievances explained away," and a review is given of the statements made by a Deputy Inspector-General.

In order to save the medical department of the army from being regarded by their civil brethren as a corps of discontented grumblers—whose grievances, according to the Deputy-Inspector, are all groundless, and whose career is all *couleur de rose*—I venture to make a few remarks upon these causes of discontent, which are unquestionably sapping the foundations of the Army Medical Service, and bringing it into such disrepute, that it is with great difficulty candidates can be found to enter its ranks.

The principal cause of this discontent is undoubtedly a want of confidence in those who govern the department, and the conviction based upon facts that their interests are disregarded. The Warrant which was believed to be the Magna Charta of the Medical Service, was granted in 1858; it was but short-lived; a storm was raised against it by the executive; naval authorities complained that the surgeons' rank interfered with that of commander; they prevailed upon the War Office to reconsider the Warrant. The Horse Guards no sooner saw it than they issued memoranda and confidential instructions to commanding officers, which virtually explained away the obvious meaning of many of its clauses; and the result was, that a mutilated Warrant appeared in its place, which placed every surgeon pro-

noted after its promulgation *junior* to the executive officer of corresponding rank. This created great discontent; and it was again reconsidered, and a *third* Warrant was issued, in which the position of the surgeon was restored, but in which other important items were omitted.

The medical officers of the army naturally expect that the clauses of the Warrant will be rigidly and literally adhered to—else it is a useless document. Now, it is a notorious fact that this is not the case. In India it is a dead letter; at home it is tampered with daily, and construction given to its clauses far different from the plain meaning of the text. Surgeons have struggled for its just administration, and, having failed, have retired in disgust from an unseemly and useless agitation. Take for example, the seventeenth clause of the Warrant of 1858, which states "that such relative rank shall carry with it *all precedence* and advantages attaching to the rank with which it corresponds, except as regards the presidency of courts martial, and shall regulate the choice of quarters, rates of lodging money, servants, forage, etc.

The very first sentence of this clause is in reality a *nullity*. Relative rank does *not* carry with it all precedence or the advantages which belong to the corresponding rank. The present position of the regimental surgeon at his own mess-table is a direct contradiction to this clause. His relative rank gives him *no* precedence there, as a matter of right, though it may be conceded to him as a matter of courtesy.

If guests are entertained at mess, the senior executive officer plays the part of host, and takes the lead; while the surgeon, who may be one or two grades above him in rank, looks on in silence. When the band-master is called in according to custom to receive his orders for playing any additional music during the evening, he takes his instructions from the executive officer, no matter what his rank may be. I speak from my own personal knowledge of facts. I have seen young lieutenants assume this position as a right, in the presence of the surgeon ranking relatively as a major.

These may be small matters, but it is trifles which make up the sum of life; it is matters of detail of this kind which, by daily constant repetition, gall and wound a body of gentlemen, whose education and attainments should shield them from such petty annoyances.

Gutta cavat lapidem non vi sed sæpe cadendi. They feel these things acutely, and wince under a system which compels them to a humiliating position in the presence of their juniors, which forbids them to assume the privileges which the Warrant plainly authorises, but yet has no compunction in stopping from the surgeon's pay the heavy subscriptions which tend materially to keep the mess and band in existence. There is no difficulty whatever on the part of the authorities respecting the relative rank of the medical officer, *when they are about to mulct him of his pay.*

The remedy for this grievance is simply this. Let the surgeon occupy his rightful place at the mess-table according to seniority of rank.

The uniform of the medical officer is another matter which created great discontent. It is very right that the surgeon should wear a distinguishing dress; but why distinguished for its ugliness? Why mark him by surrounding his body with a hideous black strap, not nearly so ornamental as that worn by a railway guard? In cavalry and artillery, the only officers who are not permitted to wear the gold belts of their corps, are the surgeons. Even the veterinary surgeon, the quartermaster, and riding master wear gold belts, while the surgeon parades in his black strap.

The remedy for this, too, is simple. Give the medical officer a distinguishing uniform by all means, but let it be such as will not make him ashamed to appear among his fellow-men.

Surgeons of cavalry and horse artillery have a clear cause of complaint in the fact that they receive no allowance for forage for their horses, and have to pay 8½d. per day for each horse they keep. It is true their executive brethren are subject to the same rule, but while so-called combatant officers receive additional regimental pay proportionately to officers of infantry, the surgeon receives no such advantage. The advantages of relative rank affecting the question of forage, have been carefully suppressed in the mutilated Warrant now in force; the word "forage" is omitted entirely.

Here, again, the remedy is simple. Give medical officers *free forage* for their horses, in these branches of the service, and in the same proportion as officers of corresponding rank. The surgeon attends quite as many parades as the major, is quite as much in the saddle, and wears out his horses quite as rapidly, even without hunting them twice a week like his gallant comrade.

Very great discontent has been produced by the present system of compelling medical officers to pay all the expenses of rejected recruits. No doubt cases of great carelessness and neglect have occurred, but in many instances it is a matter of professional opinion. If medical officers are to be subject to this tax, then let them be paid for each recruit they pass. At present, every individual with whom the recruit comes in contact, from his enlistment to his final approval, receives special remuneration; the surgeon alone excepted.

Another cause of discontent has been the promulgation of a Horse Guards' circular stating that, when soldiers are sentenced to be marked under the letter D. or B. C. (bad character), the operation of tattooing the culprit is to be performed *under the direction* of the regimental surgeon, and by the hands of the hospital sergeant. It is very right that medical officers should be present to see that the soldier is not injured, but as well might he instruct the drummer in his infliction of the lash, as to take any directing part in an operation so revolting. Surely this is a legitimate cause of complaint.

There are others which I could mention, small perhaps, individually, but all making up the weight which hangs on the back of the department.

Beyond all question, the greatest boon which could be granted to the medical department of the army is an *early retirement*; and it is refreshing to find that on this point even the Deputy-Inspector agrees. No wonder candidates are reluctant to come forward, with the prospect before them of serving twenty years as assistant-surgeon. If the unquestionable right to retire after twenty years' service were granted, and the grievances I have mentioned, with perhaps a few others of minor importance, were abolished—I will venture to say, the highest class men will seek the service as an honourable and desirable career of life. It is an ominous fact, and one which the authorities would do well to consider, that there has been a marked depreciation in the qualifications and acquirements of the candidates at each successive competitive examination for the last two years, *pari passu* with the increasing want of confidence in the fickle promises of the Warrant.

In asking for these things, medical officers make no unreasonable demands. They wish only to be treated fairly, and justly, and in good faith. If so, these murmurs of discontent, now both loud and deep, would soon disappear.

I am, etc.,

A STAFF-SURGEON.

THE LAMBETH DEGREE. His Grace the Archbishop of Canterbury still retains his medical-degree-giving power. He may, if he please, to-morrow dub his butler doctor of medicine; and his butler may practise medicine, if he choose, like any other person in the country. But he could not get registered; that is all the obstruction he would meet with.

Medical News.

APOTHECARIES' HALL. On October 22nd, the following Licentiates were admitted:—

Barrow, Thomas Samuel, Halsey Terrace, Chelsea
Clifton, George Herbert, Burwell, Cambridgeshire
Evershed, Arthur, Billingshurst, Sussex
Evershed, Montague Frederic, Billingshurst, Sussex
Knight, Charles Frederick, Brill, near Thame, Oxfordshire
Lucas, Thomas, Burwell, Cambridgeshire
Morton, Selby Mars, Haverstock Hill, Hampstead
Smith, Joseph, York

Passed as an assistant:—

Gowland, George Robert, Sunderland

APPOINTMENTS.

HENDERSON, William, M.D. } appointed Examiners in Medicine
KEER, David, M.D. } in the University of
WILLIAMSON, William, M.D. } Aberdeen.
FAWCETT, Francis M., Esq., elected House-Surgeon to the Scarborough Dispensary, in the room of J. Horne, M.D.
JOHNSTON, W. W., M.D., elected Physician to the North London Consumption Hospital.
M'GILL, Andrew, M.D., elected Physician to the North London Consumption Hospital.

POOR-LAW MEDICAL SERVICE.

ALLANSON, James, Esq., to the Greatham District of the Hartlepool Union.
BUTLER, Thomas M., Esq., to the Shalford District of the Hambleton Union, Surrey.
COLLINGWOOD, Joseph, Esq., to the Castle Bytham District of the Bourn Union, Lincolnshire.
DAVIES, Daniel, Esq., to the Western District of the Gower Union, and the Union Workhouse in the parish of Penmaen.
DUGESNE, Robert, M.D., to the Chingford District of the Epping Union.
GRIFFITHS, William H., Esq., to the Stoke Golding and Wolsey Districts of the Hinckley Union, Leicestershire.
LEAH, William W., M.D., to the Iwer District of the Eton Union.
MARTIN, Robt. M.D., to Districts 1 and 3 of the Warrington Union.
PAGE, Alexander H., M.D., to the Tamar and Stoke District of the Stoke Dameral Union, Devon.
RICHARDS, Henry E., M.D., to the Misterton District of the Gainsborough Union.
TWEDDIE, John, Esq., to the Keswick District of the Cockermouth Union.

INDIAN ARMY.

BAILLIE, Assistant-Surgeon G., M.D., Madras Army, to be Surgeon.
CLIFFORD, Surgeon F. M., Bengal Army, to be Surgeon-Major.
CRADDOCK, Surgeon W. M., Bengal Army, to be Surgeon-Major.
HILLIARD, Surgeon J. M., Bengal Army, to be Surgeon-Major.
LINTON, Surgeon R. P., Madras Army, to be Surgeon-Major.
MACKENZIE, Assistant-Surgeon D., Madras Army, to be Surgeon.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

STARK, J., Esq., to be Surg. 1st Lanarkshire Engineer Volunteers.
STEWART, D. P., Esq., to be Assistant-Surgeon 1st Lanarkshire Engineer Volunteers.
WALKER, T. J., M.D., to be Lieutenant 6th Northamptonshire R.V.

MARRIAGE.

*PERRY, Marten, M.D., of Evesham, to Harriet H., second daughter of S. SMITH, Esq., of Upton Snodsbury, Worcestershire, on October 27th.

DEATHS.

LIDDERDALE, John, M.D., at Kintbury, Berks, aged 60, on Oct. 22.
LOVEGROVE. On October 22nd, at Kensington, aged 60, Elizabeth, wife of Joseph Lovegrove, Esq., Surgeon.
SNEPPARD, W. M., Esq., Surgeon, at Geelong, Australia, aged 37, on September 16.
WILMANS, A. A., M.D., at Colesberg, Cape of Good Hope, aged 37, on September 3.

THE PRINCE OF WALES has been elected President of the Society of Arts.

PRINCE ALFRED is, we are informed, to study Chemistry in Edinburgh, under Dr. Lyon Playfair.

GUY'S HOSPITAL can boast of upwards of two hundred students this year. We need hardly say that no other hospital has as many. St. Bartholomew's comes next to it in number.

MR. BELFOUR has been connected officially with the College of Surgeons upwards of fifty years.

THE MEDICAL COUNCIL. Dr. Apjohn has been re-elected representative of the Dublin University in the Medical Council for a further term of five years.

THE PHARMACOPEIA. It is the business of the Lords Commissioners of the Treasury to fix the selling price of the forthcoming *Pharmacopœia*.

THE KING OF SAXONY has made Mr. Dale of Scarborough Knight of the Order of Albertus, as a mark of his estimation of professional services rendered by Mr. Dale to some members of the royal family during their late stay at Scarborough.

UNIVERSITY OF CAMBRIDGE. The examination for the degree of Master in Surgery will commence on Monday, November 23rd. Candidates for the degree are requested to send the necessary certificates to the Regius Professor of Physic on or before November 9th.

THE METEOROLOGICAL SOCIETY have determined to admit into the pages of their *Quarterly Journal* a series of observations on climatology, regarded mainly from a medical point of view. This excellent movement has been initiated at the instance of Dr. Scoresby-Jackson.

DONATION TO THE GLASGOW INFIRMARY. Dr. Macfarlane has presented to the Museum of the Glasgow Royal Infirmary a valuable collection of coloured models, "which represent most faithfully all the internal diseases of the human body".

INCREASE OF TYPHUS FEVER. On account of the increase of typhus fever in the metropolis, Drs. Murchison and Buchanan, physicians to the Fever Hospital, have called the attention of the medical official of the Privy Council to the necessity of preparing for a possible serious outbreak of the fever during the winter.

ROYAL COLLEGE OF PHYSICIANS. After a long correspondence, the Commissioners of Woods and Forests have agreed to grant the College of Physicians a lease of their premises in Trafalgar Square for 999 years. This is a happy conclusion of what once seemed to be a serious affair to the College.

UNIVERSITY OF CAMBRIDGE. Dr. Clark, Professor of Anatomy, has offered the University the loan of £2364:14:3, for ten years, at $1\frac{1}{2}$ per cent. interest, for the purpose of completing the New Anatomical Museum. The Syndicate have recommended that the offer be accepted, and that the necessary contract be prepared for the approval of the Senate.

DEATH OF SIR JOHN SPENCER LOGIN. This gentleman, who passed many years of his life in medical and political employ in India and Persia, died suddenly on the 15th inst., at Felixtowe, in Suffolk, at the age of 54. On the annexation of the Punjab to the British dominions he became guardian and superintendent of the Maharajah Dhuleep Singh. He was knighted in 1854, and retired from the Bengal service in 1858.

UNIVERSITY OF LONDON. The Council have given notice that the examination for the degree of Bachelor of Medicine will commence on the 2nd of November, and terminate on the 9th. The subjects of examination are forensic medicine, general pathology, surgery, midwifery, practical examination in obstetrics and surgery, reports on medical cases, pharmacopœias. The examination for honours in connexion with this degree will commence on the 11th of November. For the degree of Doctor of Medicine the examination will commence on Monday, November 23rd. The examinations will be conducted by Professor James Ferrier, LL.D.; Professor Guy, M.B.; Dr. Odling, F.R.S.; Mr. Curling, F.R.S.; Mr. Hilton, F.R.S.; Dr. Tyler Smith; Dr. C. West; Dr. Parkes, F.R.S.; Dr. Sibson, F.R.S.; and Mr. Edward Poste, M.A.

ROYAL COLLEGE OF SURGEONS. The Council of the Royal College of Surgeons have determined, we need hardly say not without a severe fight, that minutes of their proceedings shall be published for the benefit of the profession, and, we trust, for their own. We are happy to be able to bear testimony to this advance in liberality of sentiment on the part of the College, and augur good things from this favourable sign.

OLD PLATE WANTED. Dr. J. J. Chisolm, Medical Purveyor of the rebel army at Charleston, publishes the following card:—*Silver Plate Wanted*. To be converted into caustic for the use of the sick of the army. Eight dollars per ounce will be paid for all prime plate. Old spoons and old plate will answer the purposes of the medical department as well as new. Apply at Medical Purveyor's office, opposite Congaree House. (*American Medical Times*.)

MEDICAL PROGRAMME. We call the especial attention of those of our readers who are interested in Military Surgery, to the article on gunshot wounds of the chest by Dr. B. Howard, Assistant-surgeon, United States Army. We understand that the Surgeon-General has ordered, at the next engagement of the army of the Potomac, that a hospital shall be organised under charge of Dr. Howard, for the sole purpose of treating gunshot wounds of the chest by the sealing process. The results of his experience will be of great interest to the profession. (*American Medical Times*.)

A CHARITABLE GIN DISTILLER. At a late meeting on the subject of Dwellings for the Poor in Bethnal Green, Dr. Moore stated that the other day he had come in contact on an omnibus with a very extensive distiller of gin, who stated that, having in past years drawn a large amount of money from the poor, he now wished to give a portion of it back, and he accordingly authorised him to state that, should houses be erected for the accommodation of the poor artisans and labouring men some six or seven miles out of town, he would subscribe 1000 guineas to form the nucleus of a fund for carrying them to and from their work every day.

VOLUNTEERS FOR NEW ZEALAND. A most important proclamation has just been issued by Sir George Grey. It is the intention of our Ministers to enrol, if possible, 5000 men in Australia and elsewhere, to take service in New Zealand. The plan embraces, besides the regular pay for military service, a free grant of land in the Waikato district. Thus, a field officer will be entitled to 400 acres; captain, 300; and surgeon, 250. No man above forty years of age will be accepted; and every one thus enrolled will have to serve as a volunteer militiaman for three years, when, at the expiration of that period, he will be relieved from actual service, and become entitled to a Crown grant for the said land.

EFFECTS OF GOOD DRAINAGE AND WATER. During the quarter just ended the rate of mortality in Salisbury has been extraordinarily low, the deaths out of a population of over 9000 having been only 20; while the average number of deaths in the corresponding quarter, for many years previous to the introduction of a proper system of drainage and water-works was 50, and since these works, for the last eight years, the average has been 37. The average annual number of deaths for the eight years preceding the completion of the drainage (excluding the cholera year) was 243, or 27 in 1000, and for the same period since 193, or 21 in 1000, an actual reduction of almost one-fourth of the whole number. With just 50 deaths per annum less than usual during the last eight years, Salisbury is now looked upon as one of the healthiest cities in the kingdom. If an equally low rate of mortality had prevailed in London during the last quarter only about 450 persons would have died each week, instead of the numbers actually recorded—about 1250.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
 TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
 WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
 THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopædic, 2 P.M.
 FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
 SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Epidemiological Society, 8 P.M. Dr. B. W. Richardson, "On the Present Position and Prospects of Epidemiological Science."—Medical Society of London, 8.30 P.M. Mr. De Méric, "Occasional Non-Transmission of Syphilis to the Offspring."
 TUESDAY. Pathological Society, 8 P.M.—Entomological.—Photographical.
 WEDNESDAY. Obstetrical Society of London, 8 P.M. Mr. Hardey, "Retroversion of Uterus"; Dr. Braxton Hicks, "On his Method of Turning"; Mr. I. B. Brown, "Vaginal Lithotomy."—Geological.
 THURSDAY. Harveian Society of London, 8 P.M. Mr. Ernest Hart, "On the Diseases constituting the Condition commonly called Amaurosis (with Ophthalmoscopic Demonstrations)."—Linnæan.—Chemical.
 FRIDAY. Western Medical and Surgical Society of London, 8 P.M. Practical Evening for the Narration of Cases and the Exhibition of Specimens.
 SATURDAY. Royal Botanical.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—OCTOBER 24, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys...1003 } 1951	1216
	{ Girls... 948 } 1889	1188
Average of corresponding weeks 1853-62		

Barometer:
 Highest (Fri.) 30.100; lowest (Sun.) 29.886; mean, 29.982.
 Thermometer:
 Highest in sun—extremes (Sun.) 91 degs.; (Sat.) 57.3 degs.
 In shade—highest (Th.) 63.5 degs.; lowest (Sat.) 34 degs.
 Mean—52.5 degrees; difference from mean of 43 yrs.+3.8 degs.
 Range—during week, 29.5 degrees; mean daily, 12.9 degrees.
 Mean humidity of air (saturation=100), 80.
 Mean direction of wind, S.W. & S.E.—Rain in inches, 0.03.

TO CORRESPONDENTS.

*• All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

STONEWALL.—An assistant-surgeon in the navy has to go through much the same curriculum as the army assistant-surgeon. He has to produce his license to practise, and also all his certificates. The examinations in anatomy, surgery, medicine, and chemistry, are held at Whitehall. Latin is especially required; translations from Gregory's *Conspectus* must be satisfactorily given. This is indispensable.

S. M.—The King and Queen's College of Physicians in Ireland grants the licence to practise physic; and, more than this, they also claim the right under their charter of granting degrees in medicine. If their view of their rights be correct, there is no doubt that their recently made claim of granting degrees, removes their Licentiates from the class of Licentiates who take title of Doctor by courtesy.

THE ASSURANCE OFFICES AGAIN.—A correspondent writes:—"An Assurance Company asks me to examine for them at a half-guinea for sums under £150. I have replied, that if they will give two, three, four, five guineas, for sums up to and above £10,000, I am agreeable, but not otherwise. A second letter has been sent, which gives me no hope of their accepting my terms. Can I accept their terms? There are plenty of my brethren who will take them if I do not. What should be the rule of practice in such a case?"

I am, etc., P. A.

[There can be no doubt that P. A.'s offer to the Assurance Company is a fair one. We believe that there are some offices which do a deal of small business in the manufacturing districts, who give a fee of 5s. for the examination in cases of sums assured under £100. The proper mode of settling such a difficulty would be for the office to appoint their examiner, with a fixed annual salary. It seems impossible to lay down any definite rule as to the fees of medical men. We know that, practically, men who call themselves, and in reality are, physicians, take 5s. fees; and that again there are physicians who never touch less than £1:1 fees. It is, therefore, impossible to lay down any definite rule in the case before us. If only every doctor would refuse to take less than the good old guinea-fee, we should obtain our rights. EDITOR.]

THE APOTHECARIES' HALL.—SIR: In reading the account of the late "mysterious death of a young girl at Yeovil," I was much surprised at the following remarks, which are alleged to have fallen from Dr. Wybrants, the coroner, during the adjourned inquest (which, however, I should hope is not correct): "That many eminent surgeons—Sir Astley Cooper, Sir Benjamin Brodie, and others—would not degrade themselves by passing the Hall." Perhaps Dr. Wybrants will explain himself more fully, and point out why and wherefore the Hall Licentiates should be regarded as degraded members of the profession?

I am, etc., L.S.A.

REGISTRATION OF VACCINATION.—SIR: As the registration of a child's birth is a requirement of the law, and neglect thereof incurs a penalty, it is, I believe, pretty generally attended to. It would, I think, be very easy to procure a registration of vaccination at the same time, for which purpose it might be proper to lengthen the time allowed for registration of birth and vaccination to the end of the third month. By this method, the parents' trouble would be lessened, and a very slight addition made to the registrar's duty, in having to insert in an additional column the letter V, signifying the vaccination. This modification of Mr. Fawcett's plan would also lessen the number of certificates required from the medical man, and would also be a benefit to the party vaccinated in future life, as the register of vaccination as well as birth could be presented in one and the same document.

October 20th, 1863. I am, etc., A YORKSHIRE MEMBER.

COMMUNICATIONS have been received from:—THE HONORARY SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY; DR. SANKEY; MR. LOWNDES; MR. T. L. PRIDHAM; DR. A. SAMUELSON; DR. GRAILY HEWITT; DR. KIDD; MR. J. B. CURGENVEN; THE HONORARY SECS. WESTERN MED. AND SURG. SOCIETY; MR. R. W. DUNN; DR. W. S. KIRKES; MR. C. J. EVANS; MR. R. JONES; MR. J. C. S. JENNINGS; DR. KITCHING; DR. PERRY; DR. MORGAN; DR. BRYAN; MR. HAILLEY; THE REGISTRAR OF THE MEDICAL SOCIETY OF LONDON; DR. C. B. RADCLIFFE; MR. W. BOWMAN; A GENERAL PRACTITIONER; and MR. O. PEMBERTON.

ADVERTISEMENTS.

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Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in DRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

PRACTICAL HINTS ON THE TREATMENT OF NERVOUS PAIN AND NEURALGIA.

By C. B. RADCLIFFE, M.D., Fellow of the Royal College of Physicians; Physician to the Westminster Hospital, and to the National Hospital for the Paralysed and Epileptic.

In the few remarks I have to make, I do not propose to suggest a particular plan as applicable to the treatment of all kinds of pain. I propose merely to speak of the kinds of pain which are known as nervous pain and neuralgia, and which are sufficiently well known to need no formal definition; and upon this small part of a wide subject I do not propose to do more than read the rough notes of three or four cases, with a few paragraphs of preliminary observations. And in doing this, I feel no little hesitation, Mr. President, in speaking before you upon a subject which you yourself have elucidated, in one of its most important bearings, in so satisfactory a manner.

The outline of the plan of treatment which I have to propose is this:—to take care that the diet does not contain too much lean meat and too little fatty and oily matter; to look upon the properly regulated use of alcoholic drinks as essential to success in treatment; to avoid tea altogether; to be very chary in the use of sugar; to give some preparations of phosphorus, with or without cod-liver oil, as nutrients for a starved nerve-tissue; to avoid the habitual employment of aperients; and, as a rule, to eschew the use of sedatives in sedative doses. This plan is, indeed, that which I have carried out for four or five years in many cases in which the primary indication of treatment was to remedy an asthenic condition of the nervous system—various convulsive maladies, many forms of paralysis, and so on.

In the few minutes at my disposal, it is impossible for me to do more than hint in the most cursory manner at the reasons which have dictated this plan.

I have used fatty and oily articles of food, and cod-liver oil, on the supposition that these substances might be essential to the proper nutrition of nerve-tissue; for this tissue, in the main, is built up of fatty and oily matter.

I have used some preparations of phosphorus, with a view to promote the nutrition and functional activity of nerve-tissue; for phosphorus, like fat, is an important ingredient in this tissue. I have given the phosphorus for the same reason as that which would induce me to give iron in cases where I wanted to favour the nutrition of the red corpuscles of the blood. For the last seven or eight months I have used the hypophosphites as a means of giving phosphorus; and the results at which I have arrived would seem to show that these salts are quite as effectual as, and much more convenient than, the phosphorated oil of the Prussian *Pharmacopæia*, or the ethereal tincture of the French *Codex*—preparations which I had been using on a somewhat extensive scale for the three or four years previously. I find, indeed, that the hypophosphites are almost as effectual remedies in the treatment of nervous pain and neuralgia, and of

various other asthenic conditions of the nervous system as Dr. J. F. Churchill of Paris would have us believe them to be in the treatment of phthisis; and I think that the science of healing is indebted in no small degree to Dr. Churchill for having brought these salts into the service of medicine.

I do not take upon myself to explain why an excess of lean meat should do harm in the cases under consideration. I do not profess to know. It may be, in some cases, that it favours a gouty condition of the system—a condition which is at the foundation of many kinds of pain; but, whatever be the explanation, I have no doubt that excess of lean meat does do harm in many cases of nervous pain and neuralgia; and that the common notion, not always confined to non-medical circles, that lean meat is the one nutrient substance, is a mischievous fallacy. In the lectures which I had the honour of delivering before the College of Physicians a few months ago, and which have recently been occupying a place in the pages of the *Lancet*, one great point was to show that pain was the sign of depressed, and not of exalted vitality; and that alcoholic drinks, properly administered, were the natural anodynes. And to these lectures I must refer for my reasons for arriving at these conclusions. Indeed, here I will only say, that experience has taught me to look upon the properly regulated use of alcoholic drinks as essential to the successful treatment of nervous pain and neuralgia.

Why tea should be unsuitable as a common beverage, in the cases under consideration, may also be a difficult and complicated problem. I am, however, disposed to think that tea must be hurtful if alcoholic drinks are required, except it be to correct the results of excess in the use of such drinks. Tea—cold tea, for the action of hot water must be separated, if we would know the true action of tea—would seem to be not remotely analogous in its action to digitalis, and therefore only tolerable when there is an active condition of the circulation to subdue—a condition which is not often met with in cases of nervous pain and neuralgia. But, be the reason what it may, I am perfectly satisfied that it is a matter of vital importance to eschew tea as an habitual beverage, if we would fight successfully against nervous pain and neuralgia.

As to sugar, I am disposed to think that this substance does harm in cases where a rheumatic habit is at the bottom of the trouble; and that it may do harm by favouring the formation of that substance which, upon very good grounds, is believed to have much to do with the production of rheumatic fever—viz., lactic acid. At any rate, I have now seen several cases in which a patient, who had taken a good deal of sugar, was much more free from pain upon taking this substance in moderation.

Aperients will scarcely ever be wanted, if a sufficient amount of fatty and oily matter be introduced into the diet; and this, I take it, is a very great advantage; for, in my opinion, there is no one practice which so much tends to keep up a habit of nervous pain and neuralgia as that of using aperients and purgatives habitually.

With respect to the use of sedatives in sedative doses for the relief of pain, I will only say this, that this practice seems to be cutting the Gordian knot, instead of untying it—a plain confession, in fact, that treatment has failed.

It is, however, more than time that I bring these prefatory hints to a close, and proceed to the cases of which I have spoken. I read the notes taken at the time; and I leave unread many similar notes, at least tenfold in number.

CASE I. Jan. 8th, 1863. Mrs. W., aged 36, the widow of a clergyman, complained of distressing headache, low spirits, and sleeplessness; and said that she had suffered in this manner almost incessantly for the last five years. Trouble connected with the death of her husband was

the primary cause—not privation, for her circumstances were tolerably easy.

There was nothing remarkable in her appearance, except that she was very thin. Pulse 86; the hands and feet were habitually cold; there was complete want of appetite; the bowels were exceedingly constipated. For the last two years she had lived almost entirely upon the lean of mutton-chops and strong beef-tea. Butter and fat had been avoided, from a fear that they would cause biliousness; and tea had been taken at least twice a day, because it was liked. Alcoholic drinks had been not entirely abstained from; but a wineglassful of very weak brandy and water would be the maximum quantity allowed during the course of the day. All light and noise had been intolerable for some months past; and her time had been spent chiefly in a darkened room upon a sofa.

She had had no treatment during the last two years, except occasional doses of quinine and eight grains of compound rhubarb pills every other night. She had previously tried arsenic, quinine, valerian, and “everything,” without any permanent benefit. Change to the seaside had been the only thing that had done any good.

She was recommended to use weak coffee for breakfast, instead of tea, with an egg or a little fat bacon; a little milk and cream and brandy at 11 A.M.; a light early dinner, with a glass of sherry; a little coffee and bread and butter at 5 P.M.; and an hour before bedtime, a good supper, something like the dinner, with a full glass of Bass's ale or Guinness's stout, in place of sherry. She was also recommended to take as large an amount of oily and fatty matter as she could, and to diminish the amount of lean meat. She was ordered to take ten grains of hypophosphite of soda and a drachm of tincture of hops three times a day.

January 16th. She was better; had more animation and freshness in the countenance. She slept four hours continuously last night. There was less excitability. The medicine was continued.

January 30th. There was a great change for the better: she said that she had scarcely had a headache for the last week. Yesterday she had a walk of two miles without bringing on headache—a most unwonted thing with her. The bowels had acted every day for a week without aperients. The medicine was continued.

March 1st. She looked ten years younger than when I saw her last; slept well; and ate well. The bowels acted without aperients. There had been no headache to speak of since the last visit.

June 2nd. She brought her daughter to see me. She herself continues quite well.

CASE II. February 6th, 1863. Mr. J. W., aged 52, occupied in the Custom House, very thin and spare, walked with great difficulty by the aid of a stick, and complained of constant sciatica in both legs. He had lumbago three years ago; and this pain, after troubling him for some weeks, shifted first into one leg and then into the other, and from that time to this had been progressively getting worse. He had rheumatic fever when 25 years of age.

His pulse was 70, and very weak; the appetite very bad. For a long time, almost all his life, he had lived upon a very dry diet, disliking fat in any form, and taking very little butter. He had been a teetotaler for fifteen years. Three years ago he took hydrochlorate of ammonia for several months, with some benefit. Since this time he had been under homœopathic treatment, without any benefit. Part of the latter treatment was a permission to take fifteen drops of Battley's sedative solution every night on going to bed.

I put him on the same plan of treatment as that described in the first case, with half an ounce of cod-liver oil twice a day in addition. The sedative at night was

discontinued, and some stout ordered to be taken in its place.

February 16th. There was no change for the better; but, on examination, it appeared that he had yet to begin the treatment recommended at the first visit. He would have it that the fat and oily matters would make him bilious. The treatment was ordered to be continued.

March 2nd. He was better. For the last week he had slept better than he had done from the commencement of his illness. He found that oily and fatty matters did not disagree with him, and that his bowels for the last week had acted without medicine. The pain was somewhat relieved, but not so much as could be wished. He told me that he was in the habit, and had been for years, of taking three or four times a day, with his meals or between his meals, *café noir*, without milk, but with as much sugar as the coffee would dissolve; and, therefore, I recommended him to leave off sugar as much as possible, and to diminish the amount of coffee. The treatment was continued.

April 16th. He walked into the room without any apparent stiffness, and without his stick. He had lost the pain in the legs altogether for the last fortnight, and had gained ten pounds in weight during the last month. He was hungry now, and slept very easily at night. He had never required any aperient medicine since the adoption of this plan of treatment.

CASE III. Mrs. T., aged 38, the wife of an artist, was admitted under my care into the Westminster Hospital some time ago, for *tic douloureux* in the right side of the face. She was tall and flabby in build, without family, and, as it appeared, had been the subject of much privation and misery for the last four years, during which time she had scarcely ever been free from the *tic*. At present, the pain, which was almost incessant, was brought on by any attempt to masticate or swallow; and she appeared to have very little relief, except when she was stupified by opium. She confessed to having taken half a teaspoonful of laudanum every night at bedtime for two years, and a “little extra” now and then in the course of the day. Bread and tea appeared to have been the principal articles in her dietary.

She was recommended to have a chop, two eggs, and a pint and a half of stout, the greater part of the pint to be taken at bedtime; also coffee, in place of tea; and, for medicine, cod-liver oil in three-drachm doses, and hypophosphite of soda in seven-grain doses three times a day.

March 7th. She slept four hours in the night continuously.

March 8th. She had a good night, upon the whole; and took her breakfast with some appetite. The pain was more tolerable.

March 10th. Yesterday she found herself able to eat and swallow without bringing on the pain. She asked for more food.

March 20th. She had been progressively improving since the last report. There was no *tic* yesterday. The bowels now acted regularly without medicine. She had a long walk yesterday, without bringing on pain.

March 30th. She was now suffering from severe pain in the face, which was referred to a wetting in the rain yesterday. A hot bath was ordered, and the medicine continued.

April 3rd. She was well again. The treatment was continued.

April 15th. She was discharged cured. She had no pain on eating or swallowing; no pain at any time for the last fortnight, or, at any rate, no pain to speak of. She looked stronger and fresher; and was so in fact.

May 6th. I saw this patient accidentally in the ward. She considered herself well, but had been taking oil and hypophosphite almost regularly ever since her discharge from the hospital.

CASE IV. March 16th, 1863. M. Adolphe B., aged 40, a musician, was suffering from severe tic in the right cheek, and had the muscles of this side of the face drawn and contracted to a considerable degree. With few intervals, he had suffered from the pain for three and a half years. The face became contracted on the painful side two years ago. Before the pain began, he had been treated for three months with iodide of potassium for constitutional syphilis. He smoked excessively, and allowed that he had for many years been very intemperate in sexual matters. His dinner consisted chiefly of a beef-steak and a pint of stout, taken at a chop-house. He drank tea in large quantity, taking it cold with his tobacco. He never drank any spirits. He had had nearly all his teeth drawn, in the hope that the pain in the cheek might be referred to the irritation from some diseased tooth.

He was recommended to smoke less, and to try a mild tobacco when he did smoke; to take coffee in place of tea; to eat oily and fatty matters, and less lean meat; and to take three drachms of cod-liver oil and ten grains of hypophosphite of soda three times a day.

March 23rd. For the last three days he had been almost altogether free from pain; and last night he slept for several hours continuously (he had been recommended to take a glass of stout shortly before going to bed). This—i. e., sleeping satisfactorily—for several years had been unknown to him.

March 30th. He had had no pain whatever since last visit, and considered himself quite well.

May 19th. Except an occasional pang, for which he said there had been generally good reason, the tic might be said to be altogether at an end. He had lost altogether the anxious nervous look which he had when I first saw him; and the contracted facial muscles had almost altogether recovered their natural condition.

CASE V. M. W., aged 28, a lady's maid, suffered from almost constant nervous headaches. She had never been quite free from these pains for two years, but lately they had been much worse—so much worse, that she was now compelled to leave a good situation. A great moral shock, arising from the discovery of a fellow-servant dead by her side on waking in the morning, was referred to as the cause of the pain.

She had had a great deal of medicine; but did not know what kind of medicines were given, except that they were generally intended to act on the bowels, and to promote menstruation, which was always very scanty and painful, and which was once, six or seven years ago, often accompanied with a great deal of hysterical agitation. She was ordered to take cod-liver oil and hypophosphite of soda, with middle diet and porter.

April 4th. The oil made her sick. She was ordered to take the hypophosphite by itself.

April 6th. She slept much better, and woke this morning without headache—a thing she had not done for two years. She was ordered to resume the oil.

April 8th. She was evidently gaining ground. She had a bad headache now, brought on, it appears, by a violent altercation with another patient in the same ward. The medicine was continued.

April 15th. She had been improving progressively since the last report. There had been no headache for the last three days. The treatment was continued.

May 2nd. There had been no headache at all since the last report. The bowels now acted regularly without medicine. She was much improved in general health.

EFFECT OF SUGAR AND TOBACCO ON THE TEETH. Parents and guardians will be pleased to hear that, at the Congress of Odontologists lately held at Frankfort, it was decided that sugar and tobacco, when taken in a pure state and in moderation, are not injurious to the teeth.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

OBSERVATIONS ON CEREBRAL HÆMORRHAGE, FROM AN ANALYSIS OF FORTY FATAL CASES.

By THOMAS JONES, Assistant Resident Medical Officer at the Hospital.

[Continued from page 82.]

b. *Partial Paralysis.* The sudden supervention of hemiplegia is, of all others, the most sure symptom of hæmorrhage into the brain; and this is the most common symptom, for, as seen by the foregoing table (page 82), it occurred in 54 per cent.

In paralysis of one side of the body, the arm and leg are almost always simultaneously affected: this was observed in 16 out of the 31 cases. When any difference existed as to the degree of paralysis, the arm was the limb most completely affected; for, of the 16 cases, the arm was completely paralysed in all except one; whilst the leg was but completely paralysed in 11. When the paralysis was confined to one extremity, this was found in all the cases to be the arm, as was seen in 3 out of the 16 cases. In my last paper, I related a case of cerebral hæmorrhage, in which the paralysis was confined to the lower extremities; but in the following three cases the paralysis was confined to the arm. I shall give a short summary of each.

CASE II. *Paralysis confined to the Left Arm and Left Side of Face: Intellect Clear until the Sixth Day, when the patient died comatose; Hæmorrhage into, and Disintegration of, the Right Optic Thalamus: Escape of Blood into the Right, and a small quantity into the Left, Lateral Ventricles.* A cab-driver, 50 years of age, was admitted into St. George's Hospital on the 26th of May. He stated that he went out after tea feeling quite well; but soon afterwards, whilst on the box, he was seized with vertigo. He immediately came to the hospital. On admission he was quite sensible—able to give a clear account of himself. There was convergent strabismus of the left eye, and complete paralysis of the left upper extremity. He had perfect power over his legs, and was able to walk upstairs. The face was flushed; the pulse was full and bounding. He was cupped to fourteen ounces, a turpentine injection administered, and ten grains of calomel and a drop of croton oil were given. On the morning of the second day his pulse was still very full and bounding; he was therefore bled to sixteen ounces, and repeated in the evening to twelve ounces; ice was applied to the scalp. In the evening his bowels acted freely. On the third day there was well marked facial palsy of the left side, and convergent strabismus of the right eye. Three grains of calomel were given every six hours; leeches ordered to the temples; and a blister to the nape of the neck, which was dressed with mercurial ointment. Urine could not be obtained for examination, as he passed it with his motions. On the fifth day he remained much in the same condition—still sensible; but on the sixth day coma supervened, and, while in this state, he died in the evening.

POST MORTEM EXAMINATION, twenty-three hours after death. The body was extremely fat. The arteries at the base of the brain were highly atheromatous. The right lateral ventricle was filled with a very large loose clot of blood. A part of the blood had also passed into the left lateral ventricle. The right optic thalamus was

extensively disintegrated; the corpora striata were quite healthy. The right optic thalamus contained a very minute clot of blood. The heart was large, weighing one pound and half an ounce. The wall of the left ventricle was very thick, while that of the right was much diminished in thickness, and the muscular substance partly replaced by a layer of fat. The lungs were healthy in structure; they contained a good deal of blood. There was a white patch on the surface of the spleen, and a small block of fibrine in its substance. The kidneys were rather large, soft in substance, and somewhat congested; their cortical structure was somewhat of a mottled hue, apparently from fibrinous deposit in the parenchyma. The surface was quite smooth. The liver was healthy.

CASE III. Paralysis of Left Upper Extremity; Complete Unconsciousness: Enormous Effusion in the Arachnoid Cavity over the Right Side. Mary M., aged 32, was admitted with a history that twelve days since she had a "fit," and that she had been since almost entirely unconscious. She was able, however, to put out her tongue when spoken to loudly. There was an obscure history of her having received a blow over the right eye from a man. On admission, the right arm was quite useless, and the right pupil was dilated much more than the left; and she was almost completely unconscious. She was well purged with calomel and jalap; a mixture was given of compound decoction of aloes, tincture of cantharides, and acetate of potass in nitre draught three times a day; and a blister was applied to the nape of the neck. On the second day the left arm was completely paralysed, and the patient could move the right freely. The urine was free from albumen. Croton oil was administered; eight leeches were applied to the right temple, and a blister placed behind the ears. This treatment, however, was followed by no improvement. She died the same evening comatose.

POST MORTEM EXAMINATION, fourteen hours after death. The body was in good condition. The skull-cap was very thick. On removing it, the dura mater was seen raised on the right side by an enormous effusion of blood into the arachnoid cavity. This effusion was strictly limited to that side of the head; it extended to the bone, and covered the whole hemisphere. The blood was partly fluid, partly clotted, and adhering pretty firmly to the parietal arachnoid; but none was decolorised. The source of this hemorrhage remained obscure. The vessels of the brain (both at the base and vertex) seemed quite healthy. Most of the branches of any considerable size were followed as far as possible, but no lesion was discovered. The capillaries of the pia mater were examined microscopically, but were found to be quite healthy. The substance of the brain was healthy, and quite free from ecchymosis. The convolutions on the opposite side (left) were flattened, and the cerebral substance pale. On section, the left lateral ventricle was found much enlarged and distended with clear serum. The right lateral ventricle was nearly obliterated by the pressure from without; the central bodies being almost brought into contact with the septum. The latter, also, was pushed considerably beyond the middle line. The central parts of the brain were healthy. Some vascularity was noticed in the scalp on the right side; but there was found no trace of injury, either to the soft parts or the bones, though it was carefully looked for. All the viscera were examined and found healthy.

CASE IV. Paralysis of Right Arm: Ptosis of Left Eyelid: Partial Loss of Speech: Coma on the Fourteenth Day: Death on the Fifteenth: Hemorrhage into the Right Corpus Striatum, escaping into the corresponding Lateral Ventricle: an older Clot in the Left Optic Thalamus. William P., aged 48, by occupation a stone-mason, was a patient in the hospital during part of June and July, suffering from rheumatic gout and albuminuria, but without dropsy. He left on the 15th of July, but re-

turned in a fortnight, still suffering from his old complaint—rheumatic gout. On the 26th of August he was discharged in a fair state of health. On the 29th, whilst at home, he was seized with an apoplectic fit and partial paralysis. He was conveyed into the hospital on the 1st of September. On admission, there was ptosis of the left eyelid; both pupils were remarkably contracted. The right arm could only be raised with very great difficulty, although the motion of the corresponding leg was perfect. The right arm and hand were very œdematous, and also the right leg. There was slight swelling of the left leg. He was conscious. His urine was loaded with albumen, had a specific gravity of 1018, and contained granular casts containing oil-globules. He was purged with calomel and compound jalap powder; he took a draught containing nitrate and bicarbonate of potass in water every six hours; and two ounces of gin daily. A blister was applied to the nape of the neck. He remained in much the same state until the 11th of September, when his speech became somewhat affected. On the following day he was seized with a "fit"; after which he gradually became unconscious and semicomatose. He was attacked by convulsive movements, which recurred frequently, and died on the 13th of September, the fifteenth day of the attack.

POST MORTEM EXAMINATION. There was much œdema of the lower extremities. The skull was very thick. The convolutions were flattened, and the surface of the brain pale. The right ventricle was much enlarged, and its cavity partly occupied by blood and serum, but for the greater part by a very large clot of recently effused blood. This blood had passed into the ventricle from an extensive laceration of the corpus striatum, through which a clot, of the consistence of currant jelly, was projecting. This clot filled the body, and the anterior and descending horns of the ventricle; and in the anterior part it had encroached considerably on the substance of the brain, which was lacerated and softened. It had not, however, reached the surface of the organ. There was, in the optic thalamus of the left side, an old clot of a light tawny colour and very lax consistence, enclosed in thickened cerebral substance, but without any distinct cyst. The substance of the thalamus was much encroached upon; but the effusion had not penetrated into the ventricle, from which it was still separated by a thin layer of white matter. The heart seemed in structure healthy; it weighed twelve ounces and a half. There was, however, some calcareous deposit in the substance of the anterior flap of the mitral valve. The margin of the liver was rounded, and its surface puckered and thickened; it weighed three pounds twelve ounces. The kidneys were pale in colour; their surfaces excessively granular. Scattered through the cortical substance were numerous yellowish-white deposits of very small size, which, when examined microscopically, appeared to consist chiefly of fat; and the kidney-tubes contained also much fat. The radial and iliac arteries were found to be excessively atheromatous, with numerous calcareous deposits.

It should be noted that, in two of the above cases, the lesion existed in the optic thalamus of the opposite side. Doubtless the paralysis of the right arm, in the last case, depended upon the older clot in the left optic thalamus, and that the hemorrhage in the right corpus striatum occurred on the day before he died, when he was seized with his fatal attack.

In all the cases of complete hemiplegia, which were at first marked by improvement, the lower extremity recovered its power partially, and oftentimes completely, whilst the upper remained paralysed to the last. It should have been stated, that not unfrequently it was observed that the patient was at first seized with general paralysis, but that the power of one side was soon regained, hemiplegia remaining.

Coincidentally with hemiplegia, there existed loss of consciousness more or less complete. Of the 21 cases,

this was observed in 18; in one case consciousness was clear; in the remaining two, no note was made on this point. Of the 18 cases, there existed complete loss of consciousness in 9; and partial loss was observed in the remaining 9. In several of those cases with complete loss of consciousness, this symptom came on gradually. Although not stated in any of the cases, I have no doubt that it is a fact that, in the nine cases of partial loss of consciousness, the patient gradually recovered from a state of complete unconsciousness. It is an interesting fact to observe that, in the three cases in which the paralysis was confined to the arm, there existed complete unconsciousness; thus showing that there is no correspondence between the extent of paralysis and the degree of loss of consciousness. And this is more strongly proved by the fact that in nine cases, in which there was complete unconsciousness, there existed no paralysis of any part.

Paralysis of other parts may occur at the same time as hemiplegia. These are: the muscles of the tongue; the muscles of the face; the lips; the muscles which move the eyes; the eyelids; the rectum and bladder; the pharynx and œsophagus; the muscles of respiration; the muscles of the neck and larynx; etc.

Paralysis of these parts is not nearly so frequent as that of the extremities; it constantly occurs on the same side as the paralysed limbs.

The tongue, with respect to its movement, is affected in various ways. Sometimes it cannot be protruded at all; in such cases articulation is generally considerably affected. Some persons, again, after frequent attempts at protruding this organ, suddenly recover the power over it, and it is abruptly protruded; when this is effected, it generally deviates to one or the other side. I find that in all the cases in which this deviation was noted, it was towards the paralysed side. That this should be the case, is curious. The explanations proposed to account for it are nothing more than hypotheses; but the most feasible is that which regards the tongue as being *pushed* to the affected side by the action of its unparalysed muscles of the opposite side. In some instances the tongue is protruded perfectly straight.

Paralysis of the *muscles of the cheeks* is very perceptible; for, every time the patient expires, one or both cheeks is observed to be passively distended: and, when food is introduced into the mouth, it is found that the paralysed buccinator is unable to act upon it during mastication, therefore the morsel collects between the cheek and the teeth. In almost all the cases in which there existed complete state of unconsciousness and general paralysis, the cheeks of both sides were paralysed. This symptom is one indicative of extreme danger; for the patients presenting this died very rapidly. In those cases of hemiplegia in which the cheek was paralysed, that was always on the same side as that of the limb.

Considerable discrepancies are frequently committed in noting the state of the commissure of the lips, owing to the difficulty of detecting it; for, so long as the muscles are kept quiescent, no paralysis is perceived, but the instant the muscles are thrown into action, as when the patient opens his mouth, speaks, or smiles, the deviation becomes most perceptible. This will account for the fact that, of the forty cases, the state of the lips is stated in only three; and of these it is distinctly noted that the deviation was towards the *side of the body paralysed*, and the side on which the other muscles were stated to be paralysed; and in the other case—of general paralysis—the lips were drawn to one side. From notes I have taken, however, of cases not included in these forty, I find that the muscles which move the lips are much more frequently affected, and that always on the side of the body paralysed; so that the commissure of the lips was drawn to the opposite side, inclining sometimes upwards and sometimes downwards.

Paralysis of the eyelids, or ptosis, was observed but in

four cases: in two, in which the paralysis was confined to one side of the body, the ptosis existed on the same side; in both of these extensive hæmorrhage was found on the opposite half of the brain, in a situation such as would not readily affect the third nerve after its exit from the brain. In another the ptosis was on the opposite side to the one paralysed (Case iv). In the other case there was drooping of both eyelids, and the paralysis of the body was on both sides.

The *muscles which move the eyes* are occasionally paralysed. Deviation of the eye in one direction, as strabismus, is a symptom of rare occurrence in cerebral hæmorrhage; for, of the forty cases, two only are mentioned in which this phenomenon was observed. In one case of hemiplegia, there existed convergent strabismus of both eyes; in the other, on the contrary, there existed internal strabismus of the right eye, with a state of complete unconsciousness and general paralysis. In the former, the lesion was in the lateral ventricles; in the latter, in the pia mater, about the base.

The *respiration* may be variously affected. Sometimes the respiratory muscles of one side are paralysed, and that side of the chest in consequence is seen to expand insufficiently, and the air entering the corresponding lung very feebly; sometimes the respiration is very deep and slow, accompanied with a noisy inspiration, or stertor. I find that stertor existed in more than half the cases; and that the site of the hæmorrhage in all of them was either in the central ganglia at the base, the pons, or the medulla, or some other part in the immediate neighbourhood of the base. It is a symptom of most serious omen. The patients that presented it generally died, and that very rapidly. In one case of cerebellar hæmorrhage, however, this symptom was well marked, but the patient recovered; but was readmitted for a second and a fatal attack. Cerebellar hæmorrhage is considered more fatal than cerebral hæmorrhage, because the former is more frequently attended by stertor. Paralysis of the muscles of the pharynx and œsophagus, causing dysphagia, is very rare; for it was only observed in three cases, all of which proved rapidly fatal. I have seen a case in which the power of deglutition was so lost that the patient was fed by means of the stomach-pump, the paralysis ceased, and the patient recovered with perfect power of deglutition; thus showing that those cases are not altogether hopeless which present this symptom. Vomiting occurred in seven, and nausea in three of the forty cases. This is considered to be a constant symptom of *cerebellar hæmorrhage*. In two only of the seven did the hæmorrhage involve, besides other parts, any portion of the cerebellum; and in one case, in which there existed two or more large clots in one of the cerebellar lobes, there was no vomiting.

Paralysis of the *sphincters* is noted in eight of the cases; paralysis of the *bladder* is not a very common phenomenon after the first shock of the attack has passed off.

Even the *arteries* are not exempt from the paralyzing influence of hæmorrhage into the brain. I found in one case visible pulsation in all the principal arteries of one side of the body, whilst those of the opposite could not be felt. This visible pulsation was on the same side as the principal clot (which was very large) in the brain; but there was also hæmorrhage in the ventricle of, and the subarachnoid space over, the left side. Paralysis of the limbs was complete on both sides. This condition of the pulse has not been frequently observed. Whether the visible pulsation was caused by the obstruction to the circulation of the blood on the right side of the brain, or by paralysis of the vaso-motor nerves, I shall not attempt to discuss until I see more of such cases. It is important, therefore, to ascertain, before we adopt our treatment, the condition of the pulse on *both sides*, as collapse may coexist with a *full pulse* on one side of the body.

In cerebral hæmorrhage, what is the state of the pupils? These present a variety of modifications. The following table shows the relative frequency of the different alterations of the pupils as observed in twenty-nine cases, in which notes on this point were recorded.

Condition of Pupils.	No. of Cases.	Per Cent.
Both contracted . . .	9	31.034
One only contracted . . .	4	13.75
Total contracted . . .	13	44.784
Both dilated . . .	5	17.24
One only dilated . . .	5	17.24
Total dilated . . .	10	34.48
"Inactive" . . .	2	6.87
Natural . . .	4	13.75
	29	99.88

Thus we find the pupils much more frequently altered than natural: this was observed in 86 per cent. But it should be remembered that the size of the pupil is extremely variable, even within the range of health. We may, however, confidently assert that inequality in the size of each pupil, or inactivity of the same, are never phenomena attending sound health; and this condition is positively stated to have occurred in about 39 per cent. of the cases. Although small and dilated pupils are frequently seen in healthy persons, yet these states in the degree noticed in the above cases, their permanency, together with their sluggishness, mark them at once as depending upon the appreciable lesion found in the brain in each case. After excluding all sources of fallacy, these facts show that modifications of the pupils occur, in by far the majority of the cases, as the effect of cerebral hæmorrhage.

Now, what relation do these several conditions of the pupils bear to paralysis of the extremities, etc.? Of the nine cases in which both pupils were contracted, there existed hemiplegia in five, paralysis of both sides of the body in one, and in the remaining three there was no paralysis. Further, of the four cases in which one pupil only was contracted, there was hemiplegia in two; in one of which the paralysis of the extremities was on the same side as the contracted pupil, and in the other on the opposite side; in one there was paralysis of the limbs on both sides of the body, and in the other there was no paralysis. Thus, in contraction of one or both pupils, paralysis is more frequently present than absent, for this was observed in about 70 per cent.; and paralysis of one side more frequently than that of both, for hemiplegia existed in about 54 per cent., while general paralysis only in about 15 per cent. There does not seem to exist any relation between the contracted pupils and the site of the paralysis in different parts.

Of the ten cases in which one or both pupils were dilated, there was paralysis of the limbs in all except one. Of the five in which both pupils were dilated, there was hemiplegia in three, paralysis of both sides in one, and no paralysis in the other. Of the five cases in which one pupil was dilated, there existed hemiplegia in three; in two of which on the corresponding side to the dilated pupil, and in the other on the opposite side. In the other two there was general paralysis.

The foregoing seem to point that paralysis is even more frequently associated with dilated than contracted pupils; for with the former state of the pupils paralysis occurred in 90 per cent. It also shows that general paralysis is more frequently observed with dilated pupils than with the contracted state, as it occurred in 30 per cent. as compared with 15 in the latter. Again, as to the relation of these various modifications of the pupils and the site of the hæmorrhage in the brain, it seems that, in by far the majority of cases of contraction of the pupils, the membranes of the brain are the seat of the hæmorrhage: this was observed in 61 per cent. But to particularise. Of the thirteen cases in which the pupils were contracted,

the hæmorrhage was found in the membranes in eight, or 61 per cent.; in the lateral ventricles in three, or 23 per cent.; and in the hemispheres in two, or 15 per cent. In the nine cases in which both pupils were contracted, the lesion of the membranes existed in those of both sides of the brain in five, and on one side only in one. In one the hæmorrhage was in the lateral ventricle, and in the remaining two in the substance of the hemispheres; in one of which the clot was situated very near the base, so as to encroach very materially upon the membranes. Of the four cases in which one pupil only was contracted, the hæmorrhage was in the membranes on both sides of the brain in one; on one side, which was opposite, in another; and in the lateral ventricle in two—in one on the opposite, and in the other on the corresponding, side. In those cases in which the lesion was in the membranes, it was either in the cavity of the arachnoid, or in the subarachnoid tissue, within the meshes of the pia mater.

The above points to an important fact, that in almost all cases contraction of the pupils is almost always associated with hæmorrhage in contact with the membranes, either on the surface of the brain, which is more frequently, or when these extend into the lateral ventricles. To these points I shall have occasion to refer further on. In the ten cases in which the pupils were dilated, the following shows the several sites of the hæmorrhage in the brain, and their relative frequency.

Seat of Lesion.	No. of Cases.	Per Cent.
Membranes	3	30
Lateral ventricles	6	60
Hemisphere	1	10
	10	100

Thus it is interesting to note the complete reversion of the order of the parts affected in the latter, as compared with what was observed in the cases of contracted pupils. In the cases of dilatation, the membranes were the seat of lesion in 30 per cent.; whilst in those of contraction, they were affected in 61 per cent. In dilatation, the ventricles were the site of the hæmorrhage in 60 per cent.; whilst, in contraction, these were observed to be but affected in 23 per cent., and in those cases the hæmorrhage was found in very inconsiderable quantity, such as would not cause much pressure.

Of the five cases in which both pupils were dilated, the lesion was found in both lateral ventricles in four, and in the membranes covering both sides of the brain in the other. In the other five cases, in which one pupil was dilated, the lesion was in the membranes in two—in one of which on both sides of the brain, and in the other on the same side; in the lateral ventricles in two—on the corresponding side in one, and on the opposite in the other; and in the other case the lesion was in the substance of the opposite hemisphere. The following are the main inferences which the above data seem to warrant us to draw.

The pupils are altered in the majority of cases of cerebral hæmorrhage.

Of the modifications, contraction is the most frequent variety.

Contraction of the pupils coexists with paralysis, of which hemiplegia is the most frequent form.

Paralysis is more frequently associated with dilatation of the pupils, and that more frequently general in its extent.

Alterations of the pupils bear no relation to the seat of the paralysis when partial.

Contraction of the pupils almost always depends upon lesion in the membranes; dilatation upon lesion in the substance of the brain, when sufficient to exert a considerable degree of pressure.

[To be continued.]

MANCHESTER EYE HOSPITAL.

TOTAL ABSENCE OF THE IRIS IN BOTH EYES.

By A. SAMELSON, M.D., Surgeon to the Hospital.

R. L., of Bradwell, in Derbyshire, born before wedlock, unmarried, 38 years old, six feet high, of swarthy complexion, otherwise healthy, and rather stout, consecutively employed as labourer on farms, railroads, water-works, and as shepherd; was "always considered to have weak eyes, as the cold always flew to them," but could see to thread a needle, holding it as far as a foot distant from the eye, as well as "a sheep half a mile off on the hill side." There had been no marked sensitiveness to light. The patient, very intelligent for his station, had not been taught to read. His parents, brother, and sister, had never anything the matter with their eyes.

In September 1861, whilst almost always working in water, he got one day wet through, and could next morning see nothing but "same as ribs of fire over each eye, from temple to nose, all red." He put himself under medical treatment in February last, and was twice salivated. I saw him first in the month of July. A seton was then placed in his neck; and iodide of potassium ordered him for internal and external use. All this has been continued to the present time. The eyes, most restless before, have since become much more steady; the sun, as well as a flame, are now by the patient seen "in their natural colours," whilst previously they had appeared to him "like blood." The dizziness, formerly much complained of, has abated. The difficulties of ophthalmoscopic examination being also considerably lessened, the symptoms at present observable are as follow.

The eyes present a peculiarly dark aspect, and within the corneal area generally a deep slate colour. A gleam, as from a polished copper plate, is seen to issue from the right eye, especially when looked into from above or sideways; the reflexion from the left eye is of a paler hue. Linear greyish streaks of a fatty appearance appear along the upper margin of each cornea; the corneæ themselves are irregular in outline, acquiring a more elliptical shape with a transverse long diameter. No rudiment of the iris is visible. A milk-white dot of the size of a pin's-head, near the anterior as well as the posterior capsule, is centrally situated in the left lens, apparently higher in the right; and there are five or six equidistant curved striæ resembling the spokes of a wheel nearer the posterior surface in each lens; the rest also of the lenticular mass is not uniformly clear. The right lens is somewhat displaced, its inferior edge being fully three lines distant from and raised above the lower circumference of the cornea; whilst upwards the lens very closely approaches the cornea, and the top of the former is, as it were, hidden behind the limbus. The border of the lens being slightly jagged, this latter appears somewhat reduced in volume; the space for the aqueous humour is likewise diminished in size. Of the ciliary processes no trace can be detected by any method of examination. In the right eye, the optic nerve entrance is seen to be abnormally small, not quite regular in contour, of a chalky hue, frankly excavated; the vessels upon it are thin, scanty, bent over the edge, and almost limited to the outer portion of the disc (inverted image). The vessels and pigment of the choroid appear to be uniformly wasted. In the left eye, nothing can be discerned of the fundus, except occasionally the wavy glare of what resembles a bright fold of detached retina. The size and tension of the eyes are noways abnormal; the sensibility of the corneæ is perfect; no remarkable sclerotic injection is observable; the perception of light is moderate, the flame of an argand burner, raised one inch, being seen at twenty feet distance. There is still some nystagmus, with every now and then a more clonic rotatory jerk in either eye.

The patient states that there is "always a mist like

steam before him, same as if it made him drunk"; that he can see better for an hour in the morning; and that his left eye is by far the best of the two.

HULL GENERAL INFIRMARY.

CASES ILLUSTRATING THE TREATMENT OF JAUNDICE.

Reported by C. J. EVANS, Esq., House-Surgeon.

CASE I. *Organic Disease of the Liver, with Intercurrent Inflammatory Attacks.* W. B., aged 35, by occupation a groom, and of good constitution, was admitted under the care of Sir H. Cooper on January 16th, 1863, with symptoms of jaundice strongly marked. The conjunctive were of a bright yellow colour, the skin possessing rather more of a tawny hue; it was cool and moist, and the adipose tissue was scanty. The urine was dark coloured, like porter, containing a considerable amount of bile-pigment; when tested with sulphuric acid and sugar, scarcely any purple colour was produced. The stools were of a perfectly pipe-clay colour, and had been so for many weeks.

The symptoms had commenced about ten or twelve weeks before admission, and he had been under medical treatment. Immediately before the yellowness of the skin showed itself, he had fasted for some hours, and then had eaten a heavy meal. At the commencement, he had occasional vomiting, with a constant feeling of nausea, and this continued for about three weeks. He also complained, in the early stage, of general pains, not located in any particular part, accompanied with considerable itching of the skin, and this latter symptom existed in some degree at the time of admission. He had had no previous attacks of jaundice. He was ordered to take night and morning a pill containing one-third of a grain of podophyllin and two grains of extract of hops; and three drachms of compound decoction of aloes, with five drachms of camphor mixture, three times a day; and to have common diet.

Jan. 23rd. No improvement having taken place in any of the symptoms, the above treatment was discontinued, and the following prescribed instead:—Benzoic acid ʒss; camphor mixture ʒviij; an ounce to be taken three times a day.

Jan. 30th. Ten additional grains of benzoic acid were added to the mixture.

Feb. 1st. A relapse in the symptoms had now taken place. He complained of severe pain in the region of the liver; the yellow colour of the skin had become intensely bright, and the urine much darker, depositing abundant sediment. Six leeches were ordered to be applied to the region of the liver, and a calomel and antimony pill to be taken three times a day. The benzoic acid mixture was ordered to be omitted. Much relief followed the application of the leeches.

Feb. 7th. Rather more pain was complained of, and six leeches were again applied, and followed in a similar manner by marked relief. The leech-bites bled very freely, and required continued pressure with the fingers to stop the flow. He had no rigors. Considerable improvement was manifest also in the general symptoms about this time. The bright colour of the skin faded to a great degree; the stools became browner; and the urine assumed an almost natural colour. He was ordered to take an ounce of nitrate of potass mixture three times a day; and ten grains of Dover's powder at bedtime.

Feb. 11th. The gums were rather sore; and the calomel and antimony pill was ordered to be taken at night only. He appeared to be progressing favourably, though slowly; and was ordered to take, on the 19th, infusion of quassia with nitromuriatic acid every four hours.

Feb. 21st. Severe pain was again complained of in

the region of the liver; and this part was tender on pressure. It was evident, too, that he was becoming thinner; the skin still retained its tawny hue; and he slept badly at nights. Six leeches were ordered as before; a grain each of calomel and opium to be taken night and morning; and a pint of beef-tea daily.

Feb. 25th. Full diet was ordered.

March 2nd. The mixture was ordered to be omitted.

March 11th. He was ordered to take, three times daily, one ounce of an eight-ounce mixture, containing a drachm of iodide of potassium, an ounce of liquor taraxaci, and water.

March 17th. The compound iodine ointment was directed to be rubbed over the region of the liver twice a day.

No further improvement in the symptoms took place; and the man left the hospital, at his own request, on March 21st.

The following cases were also under the care of Sir Henry Cooper.

CASE II. J. P., male, aged 20, of healthy constitution. The urine had been dark coloured about five days; and the skin yellow, and the stools pipe-clay, somewhat less than that time. There was no sickness nor pain, and the size of the liver was natural. The jaundice had probably come on after exposure to cold. This case was uncomplicated. The skin was of a deep yellow, and the stools very light coloured. The urine was not tested for the bile-acids. He was ordered a third of a grain of podophyllin three times a day. It acted favourably; and he was cured of the disease. There had been no previous attacks of jaundice.

CASE III. P. S., female, aged 26, of healthy constitution, was suckling at the time; and was subject to "sick headaches," but had no pain whatever. The urine had been dark a week, and the skin yellow about the same time. There was no enlargement of the liver. It was a first attack. She took five-grain doses of benzoic acid; and a cure resulted in ten days.

CASE IV. J. B., male, aged 30, of enfeebled constitution. He had been ill about a week; the characteristic symptoms of jaundice showing themselves from the first. He complained of pain in the right side. The size of the liver was natural. He was a soldier, and had been in India; but he had not had a previous attack. The present one was ushered in by shivering. There was only a slight indication of bilic acids in the urine. A grain of podophyllin was given three times a day for ten days, without any good result; then benzoic acid, under which treatment a cure was effected in sixteen days.

The above three cases were out-patients of the Infirmary.

CASE V. — T., male, aged 63, of weakly constitution (a private patient); had been a very active man, and much exposed; was a drinker; and had been ailing many months. He had pain in the right side, and sickness; and the liver was larger than natural. The urine had been dark coloured for nearly a month; and it showed the presence of bile-acids. He was treated with mercurials and decoction of aloes. The case terminated fatally; and the liver was found to be cirrhotic. He had had no previous attacks of jaundice.

The following cases were admitted under the care of Dr. Daly.

CASE VI. C. B., aged 74, a tall, well-built man, was admitted on December 24th, 1862, with symptoms of jaundice. His constitution, he stated to be pretty good. The arteries at the wrist were hard and cord-like. He had always enjoyed good health, and had never had an attack of jaundice before. He had had pain, or rather a feeling of weight, in front of the chest about a month; but it had not been at all severe. He also complained of nausea, with a nasty taste in the month. The urine was dark coloured, and had been so about a fortnight;

the skin was yellow, though not of a bright colour; and the stools were like pipe-clay. When the abdomen was examined, the liver was found to be of about the natural size. The urine was tested with sulphuric acid and sugar, and no bile-acids were found to be present. This was a mild case, and there were no complications. He was ordered a grain of podophyllin in a pill twice a day, and ordinary diet, with three ounces of wine daily.

He quickly improved under the above treatment; lost the yellowness of skin, which only remained of a slight tawny colour; the urine and stools regained their natural appearance; and he was discharged cured on Jan. 26th.

CASE VII. J. P., aged 19, a farm-labourer, healthy-looking, was admitted on February 5th, 1863, with symptoms of jaundice of long-standing. The skin and conjunctivæ were of a decidedly yellow tinge, and had been so for the long period of four years, according to the lad's own statement. The urine was high coloured, but had never been very dark; there was not a great amount of bile-pigment in it. The stools had been light coloured some months. The size of the liver could not be well ascertained, on account of the great distension of the abdomen which existed, especially in the seat of the transverse colon. This troubled him much, and had existed some time; he had also suffered pain in that region for a long time past; and he occasionally had a feeling of nausea, but never any vomiting. He had not had any previous attacks of jaundice.

He was ordered to take half a drachm of the compound jalap powder the next morning; and was put on common diet.

Feb. 6th. He was now directed to take a grain of podophyllin and two grains of extract of henbane, in a pill twice a day.

Feb. 9th. The region of the liver was ordered to be well rubbed with the compound iodine ointment night and morning.

Feb. 16th. No perceptible change for the better had at present taken place. He was ordered to continue the above medicines; and to take, in addition, five grains of iodide of potassium and ten drops of liquor potassæ in an ounce and a half of compound decoction of sarsaparilla three times a day. Having no appetite for meat, he was put on milk diet, with a pint of beef-tea daily.

March 18th. The urine and stools were improved; but the colour of the skin remained much the same; and the flatulent distension of the abdomen caused him considerable distress at times. The appetite was better. He was ordered to omit the podophyllin, and take occasionally two pills of colocynth and blue pill. Common diet was ordered.

March 28th. He was ordered to continue the mixture, but omit the use of the ointment; and to take a table-spoonful of cod-liver oil three times a day; and to have full diet.

He was discharged as an out-patient in April.

The exact size of the liver could not be ascertained; but that it was very much enlarged, especially the left lobe, there could be no doubt. Dr. Daly considered the case to be a good example of what Dr. Budd has described under the head of scrofulous enlargement of the liver.

The termination of the case would appear to strengthen this view; for the size of the liver and the enlargement of the abdomen gradually lessened; and the lad recovered, after taking cod-liver oil and iodide of potassium, with ammonioacetate of iron, for between two and three months. The jaundice was probably caused by pressure upon, and obstruction of, the minute bile-ducts.

CASE VIII. H. S., aged 43, by trade a draper, addicted to drink, and had been laid up with delirium tremens. Four years ago he suffered from abscess in the right loin, which confined him to bed six months. He was admitted under the care of Dr. Daly on May 14th, 1863.

At that time he was in a nervous, tremulous condition, the result of intemperance; besides which, the ordinary symptoms of jaundice were present, though not in a severe form. They had existed about a month or five weeks. The abdomen was full and distended. He had some pain, chiefly marked under the right ribs, and occasionally at the pit of the stomach. There had been much nausea and vomiting when the jaundice first appeared, but they had since subsided. He had had a previous attack, five years before. The stools were rather loose, quite clay-coloured; the urine high coloured, showing the purple colour in a marked degree with the acid test, indicating the presence of bile-acids. He was ordered two compound colocynth pills occasionally, and a dose of a mixture containing solution of acetate of ammonia, tincture of orange-peel, and chloric ether, three times a day; common diet, and half a pint of porter daily.

He quickly improved, lost his yellow colour and trembling condition, and was discharged cured on June 15th.

CASE IX. B. D., aged 50, female, was admitted on May 14th, 1863, with symptoms of jaundice to an extreme degree. The skin was of an intense greenish yellow hue, dry and harsh; urine as black as porter, depositing sediment; bowels costive. She did not complain of any pain, but was in a very low, weak state. The jaundice had been coming on about two months, and had been preceded by an attack of "slow" fever. She had vomited very much at first, but not latterly. She had not had a previous attack of jaundice. The urine, with the sulphuric acid test, showed distinctly the presence of bile-acids. She was ordered to take a grain of podophyllin, and two grains of extract of henbane in a pill, twice a day; and to have milk diet, and three ounces of wine daily.

May 19th. She remained much in the same state. The stools were perfectly clay-coloured. She was ordered a mixture containing chloric ether, tincture of orange-peel, and liquor ammoniæ acetatis. Sago or arrowroot was also ordered.

May 25th. Five grains of iodide of potassium were ordered to be taken three times a day in a decoction of sarsaparilla. The woman was becoming weaker; and the colour of the skin, if anything, darker than ever. There was also some distension of the abdomen. She was ordered four ounces of brandy, in addition to the wine; and a pint of beef-tea daily.

June 4th. The abdomen was more distended; she complained of great pain in it; and there was occasional sickness. A large blister was ordered to be applied to it. She died the next day.

At the autopsy, the abdomen was found full of serum and flaky lymph. The liver was rather contracted, and hobnailed in places; of a dark green colour throughout. The gall-bladder contained extremely viscid bile and a few calculi. The common gall-duct was pervious, but the cystic duct was obstructed in one part.

THE GREEK FIRE BUBBLE. We believe that what people call Greek fire is nothing more than a strong solution of phosphorus in bisulphide of carbon. The employment of this compound in some way or other against any enemy has, we believe, been often suggested to our own War Department; and during the Crimean war Captain Disney invented some sort of shell to enclose the fluid. It does not appear, however, to be so destructive as is generally supposed. The phosphorus, of course, takes fire when the sulphide of carbon has evaporated, but it only ignites very inflammable substances. We are strongly disposed to doubt the spontaneous inflammability of the original Greek fire. It seems to us more probable that "naphtha" was thrown from engines, and was afterwards ignited by the balls of "sulphur and pitch from evergreen firs," projected ready lighted on arrows and javelins. (*Chemical News*.)

Original Communications.

ON ULCERATIVE INFLAMMATION OF THE VALVES OF THE HEART, AS A CAUSE OF PYÆMIA.

By W. S. KIRKES, M.D., Assistant-Physician and Lecturer on Medicine at St. Bartholomew's Hospital.

Among the more formidable evils sometimes resulting from that very common disease acute rheumatism, a poisoned state of the blood, analogous to pyæmia, and brought about by suppurative or ulcerative inflammation of the cardiac valves, must certainly be included. There are on record numerous instances of death, with all the signs and *post mortem* proofs of a purulent or contaminated state of the blood, occurring in the course of rheumatic fever, which clearly demonstrate the truth of this statement. But although the fact is well proved, and although most systematic writers on diseases of the heart allude to the occasional vitiation of the blood by the products of endocardial inflammation, yet the association in question is by no means generally recognised; and when a case of the kind occurs it is apt to perplex and mislead even the most practised observers. The following instance furnishes a striking illustration of this.

CASE.* J. W., a picture-frame maker, aged 28, was admitted into St. Bartholomew's Hospital, under the care of Dr. Burrows, on October 15th, 1862, suffering from ordinary rheumatic inflammation of several joints of the upper and lower extremities. He was a fairly nourished, dark-complexioned, man, with a peculiar, anxious, and depressed aspect. The face was flushed; the skin hot and perspiring, free from eruption; tongue much coated with moist yellowish-white fur; pulse 80, of good volume; appetite bad; thirst considerable; bowels relaxed from medicine; urine high coloured, with a sediment of urates. A slight systolic murmur was heard at the base of the heart. These, of course, were ordinary symptoms and signs of rheumatism; yet there was something in the appearance of the man which was unsatisfactory, and suggestive of failing power. This was the more significant since the patient was a very temperate man, in good circumstances, and had never been laid up with any previous illness. The attack began with pain in one hip eight days before admission, and the symptoms had gradually increased. There had been no rigor. The alkaline treatment for rheumatism was adopted, and a pint of beef-tea added to milk and arrowroot diet. He had no sleep the first night of his being in the hospital, but his condition next day (16th) was not materially altered. The bowels had acted five times, the motions being pale and relaxed; he felt sick occasionally. An aromatic draught with twenty minims of tincture of opium was administered, and the alkaline treatment continued.

On the 17th, he had had another bad night; being frequently disturbed by action of the bowels; the joints were better.

On the 18th, his bowels were still much relaxed. The tongue was more coated and very red. He had frequent nausea and vomiting of greenish fluid. An aromatic draught with half a drachm of aromatic spirits of ammonia, and ten minims of laudanum, three times a day, was now substituted for his alkaline mix-

* I am indebted for several particulars of this case to the daily notes of Mr. Connell Whipple, the clinical clerk in charge of it.

ture. Three ounces of brandy, and soda-water, were also ordered.

On the 19th, the amount of brandy was doubled, on account of the continuance of the vomiting and diarrhoea.

On the 20th, the bowels still continuing profusely relaxed, his aspect assumed the character of that of cholera, the eyes and cheeks being deeply sunken, and the bones of the face prominent; his speech was weak, and he appeared much exhausted; the feet and hands were cold; pulse 110, very small and feeble; tongue red and dry. The rheumatic affection appeared to have quite disappeared. He was ordered five grains of sesquicarbonate of ammonia, ten minims of chloric ether, a drachm of compound tincture of cardamoms, five minims of tincture of opium, and a drachm of mucilage, in peppermint water, every four hours.

On the 21st, he had suffered profuse diarrhoea during the night; the motions were very offensive, some passed involuntarily; he was frequently sick, vomiting a thin green fluid. His aspect was more indicative of exhaustion; there was a dark areola around the sunken eyes; the feet and hands were cold, the latter rather livid; pulse 90. He was ordered a starch and opium enema, continuance of the draught, and two grains of calomel and a grain of opium at bed-time.

On the 22nd, he passed a better night; the bowels acted twice only; extremities warm; tongue less red, and inclined to moisture; he still vomited occasionally; thirst great. Although the choleraic symptoms were thus subsiding, a new feature presented itself, viz., considerable swelling of the left parotid gland.

On the 23rd, the general symptoms continued to improve; the bowels acted only twice; the motions were dark green, with fecal matter; the urine was clear, of natural colour, slightly acid; the sickness had ceased. The other parotid was now affected, both being much swollen. The draught was continued, and a poppy fomentation ordered for the inflamed parotid.

On the 25th, there was no material change; some tincture of bark was added to the mixture.

On the 26th, he had passed a restless night; the conjunctivæ were injected; the face and hands very red, as if from a diffused eruption, being like that so frequently observed in the reaction after epidemic cholera. The left parotid was more swollen; the swelling of the right had almost disappeared. In other respects, his condition was much the same.

On the 28th, he had had good sleep from a dose of morphia. The redness of the face had diminished, but there were several irregular bright-red slightly elevated spots on the hands and arms; none on the abdomen. During the next five or six days, the patient's general condition remained about the same; occasional diarrhoea and vomiting; the tongue constantly red, and thirst great. The eruption gradually disappeared, and the cuticle of the hands desquamated. The man's appetite improved a little, yet his aspect retained the same haggard sunken character; the left parotid suppurated, and the matter was evacuated. The strangeness of the symptoms and the continuance of the signs of irritation of the stomach and bowels, without obvious cause, led Dr. Burrows to suspect the possibility of some irritant poison being administered by the man's relations. Every precaution was accordingly taken to guard against this occurring.

On November 3rd, another change ensued. The man, after a restless night, was found to be completely hemiplegic on the right side; consciousness was obtuse, but not lost. The heart, ausculted again to-day, as it frequently was during the progress of the case, yielded no signs of increased mischief. The view now taken of the case was, that pyæmia existed—occasioned either by absorption of matter from the suppurating parotid, or, possibly, from suppuration of the left

valves of the heart; and that purulent deposit had occurred on the left side of the brain. It was also suggested, that possibly, some obstruction had occurred in one of the left cerebral arteries. The parotid was punctured again, and much matter let out. During the next three days the patient gradually sank, no noteworthy change in the symptoms occurring, and died quietly on the 7th.

The case was full of obscurity and anomalies, almost from the commencement. As the rheumatic symptoms subsided, those of choleraic diarrhoea or of irritant poisoning set in, and continued, with occasional abatement, to the end; then unintelligible inflammation and suppuration of the right parotid; then hemiplegia terminating in death. What was the cause? The autopsy explained it, and cleared up the mystery.

The left middle cerebral artery and its principal branches were found obstructed by firm fibrinous clots. The left corpus striatum was reduced by pale softening almost to the consistence of pulp. This explained the hemiplegia. But what occasioned the arterial obstruction? Numerous granular vegetations were found on the auricular surface of the mitral valve just above its free border, also along the tendinous cords, especially at their junction with the valve. Similar granules, though fewer in number, existed along the festooned borders of the aortic valves; and traces of them were also found on the tricuspid and pulmonary valves.

The mitral valve was especially diseased. Besides the granules, films of soft fibrinous material could readily be scraped from the surface, leaving the endocardium beneath red, rough, and granulated. The tissue of the valve was highly vascular; several minute vessels being clearly visible by the naked eye, still more with the microscope. The vessels were very tortuous, gorged with blood, and several of them could be traced almost to the edge of the valve. The tissue of the valve, especially where most granular, presented, when examined with a lens, an uneven, jagged appearance, very much like that of the surface of an ulcerating wart. Here there were unmistakable signs of recent acute inflammation, exudation, and slight superficial ulceration, of the mitral valve, and commencing similar mischief in the other valves. Part of the granular matter was readily separable after death; and it is reasonable to believe that some had been washed off during life, and that its arrest in the smaller branches of the left middle cerebral artery had, by obstructing the channels there, occasioned obstruction and coagulation in the main channel behind it, and also in the corresponding carotid, which was likewise found occupied by mixed yellow and red coagula. This view was strongly supported by the existence of two wedge-like masses of yellow fibrinous matter in the spleen; and by a similar large mass, surrounded by a dusky red zone, in the cortex of the left kidney. Such masses are now well-known attendants on these cases of blood-vitiation from diseased cardiac valves. Another common attendant on such cases also existed here; namely, a greatly congested state of the intestinal mucous membrane, with considerable enlargement of the solitary and agminate glands of Peyer. Much of the left parotid gland was found in a state of suppuration. Nothing else noteworthy was discovered in the body, except a few small greyish deposits in one lung, near the surface; the pleura over them was vascular, and coated with recent soft lymph.

Surely the pathology of this case is quite clear; ordinary rheumatism in the first instance; then acute ulcerative inflammation of the mitral valve; then contamination of the arterial blood by lymph, pus, and other inflammatory products from the valve; then the signs of general blood-poisoning—namely, febrile disturbance of a low typhoid form, nausea, vomiting, profuse diarrhoea, and erythematous eruption; then local suppuration in the parotids; lastly, obstruction of the cerebral

vessels, with consequent softening of the brain-substance and hemiplegia; all terminating in death, and revealing proofs of blood-poisoning in various parts of the body. Such, manifestly, are the main links and their real sequence, in this chain of morbid phenomena; and this interpretation of them is, I think, of great importance in regard to the whole of this obscure subject.

Until of late these fearful results of acute suppurative endocarditis have not attracted much notice, although particular attention was drawn to the subject by myself in 1852 (*Med.-Chir. Trans.*, 1852, page 316). Casual allusions to them, however, in various works, show that their import has not been altogether overlooked. Dr. Watson, for example, after alluding to the separation of fibrinous particles from inflamed valves, as among the accidental results of rheumatic endocarditis, and remarking that the primary effects of such detachment are mechanical, pointedly continues, "but it is very conceivable that the whole mass of the blood may, in certain cases, be contaminated by the admixture of some of the fluid products of endocardial inflammation." (*Practice of Physic*, 4th Edition, vol. ii, p. 315.) He then gives the particulars of two fatal cases of rheumatic endocarditis, in which extensive ulceration of the aortic valves was discovered after death; and observes that, "with such mischief in rapid progress within the heart, it is easy to see how the blood may be polluted and charged with a new poison in its very fountain."

Friedreich, too, among other recent writers, specially draws attention to these pyæmic effects of ulcerative endocarditis. (Virchow, *Handb. der Path.*, Bd. v, s. 323.) His observations confirm what the researches of Rokitansky (*Handb. der path. Anat.*, 1st Edition) and others, including my own (*Med.-Chir. Trans.*, 1852), had already established. Although we thus meet with occasional references to this subject, yet, as already observed, it is only of late that it has been fully worked out. In June 1862, appeared a masterly essay on the subject, by MM. Charcot and Vulpian (*Gaz. Méd. de Paris*); and this was followed, in October of the same year, by another clever paper by Lanceraux (*ib.*). In these two essays, and in an able paper by Leudet, on Aortitis and Purulent Infection thereby occasioned (*Archiv. Gén. de Médecine*, 1861, p. 575), may be found a summary of nearly all at present known on the subject, together with several illustrative cases, and ample references to modern and former observations on ulcerative endocarditis. It is therein shown that, as in the case I have just narrated, suppurative and ulcerative inflammation of the valves of the heart may contaminate the blood with inflammatory products, and thus occasion the ordinary signs of pyæmia, such as febrile disturbance of a low typhoid character, occasionally complicated with jaundice, and followed by purulent deposits and death.

It may seem curious that common rheumatic inflammation of the valves of the heart does not produce similar grave results, for the blood in such cases must be largely contaminated by inflammatory products. No doubt, such contamination does exist, and probably explains many of the febrile symptoms in acute rheumatism; but, in order that the more serious pyæmic effects should result, it is probably requisite that ulcerative destruction, with suppuration, should exist. Why such extreme effects should happen in some rheumatic cases, and not in others, is by no means clear. Recorded cases, however, seem to show that ulcerative destruction is especially liable to occur in those who have been greatly debilitated, who have led intemperate lives, or who are peculiarly cachectic. The mischief in such cases usually runs a very rapid course, and in nearly all cases seems to be fatal.

Generally, this ulcerative inflammation of the cardiac valves seems to occur in association with rheumatism.

Not always, however, is this the case. Charcot, Vulpian, and Lanceraux, refer to instances in which no rheumatic or other attendant morbid condition existed to account for the affection. Dr. J. W. Ogle's analyses of cases of ulceration of the cardiac valves is confirmatory of this (*Pathological Transactions*, vol. ix); and several instances of acute ulcerative destruction of the valves independent of rheumatism have come under my own observation.

Usually such cases seem to occur in debilitated cachectic subjects; in those who have been depressed by intemperate habits, exhausted by mental anxiety, or who exhibit signs of imperfect nutrition of their tissues, with commencing fatty degeneration. In such cases, the tissue of the valves, whether in consequence of a low inflammatory process or of mere degeneration, seems to undergo a kind of acute atrophy, softens, breaks down, and leaves an ulcerated surface with rough jagged edges, to which fibrinous concretions from the blood adhere. In several instances, this form of ulcerative destruction has been met with in pregnancy.

Another form of ulceration occurs in connection with softening of atheromatous material in the substance of the valve, and subsequent destruction of the superjacent endocardial membrane. Death, ensuing rapidly and under very obscure conditions, has not unfrequently been thus brought about.

Examples of these several forms of non-rheumatic ulceration of the cardiac valves have fallen under my notice, and may furnish the subject of another communication.

MORTALITY IN THE ARMY IN VARIOUS STATIONS. Dr. Franklyn gives the following comparison (from published statistics) between the health of the army before and after the Crimean war. Commencing with the West Indies, one of the most unhealthy stations for white troops, we find, by statistics compiled up to 1860, that in Jamaica the mortality ran as high as 260 in 1,000 of strength per annum, or a British regiment was entirely destroyed in about three and a half years. At a later period, the mean of four healthy years gave in the same colony 67 deaths in 1,000 of strength per annum. Up to 1855, it was as high as 60.8 per 1,000 of strength; it is now reduced to 20.4 per 1,000. In Trinidad, the mortality was 106.3 per 1,000 of strength. A regiment was destroyed in seven years. In 1859, with an epidemic of yellow fever, it was reduced to 89 per 1,000 of strength. In 1860, there was not a single death. In Barbadoes, the mortality was 55.8 per 1,000; it is now 6.36 per 1,000. In St. Lucia, the mortality was 122.8 per 1,000; in 1859, not one death occurred; in 1860, one only occurred. In British Guiana, the mortality was 74 per 1,000; in 1859, it fell to 13.9 per 1,000; in 1860, it went down to 6.6 per 1,000. In Canada, the mortality was 16.1 per 1,000; it is now 10.1 per 1,000, including invalids who may die at home. In Nova Scotia, the mortality was 15.1 per 1,000; now it is 7.23 per 1,000. In Newfoundland, the mortality was 11 per 1,000; it is now 4.8 per 1,000. In Bermuda, the mortality was 28 per 1,000; now it is 8.55 per 1,000. In Gibraltar, the mortality was 11.1 per 1,000; now it is 7.18 per 1,000. In Malta, it was 18.2 per 1,000 men, and sometimes went as high as 40.3 per 1,000; now it is reduced to 10.5 per 1,000. In Ionia, the mortality was 15.5 per 1,000; now it is only 7.08 per 1,000. In the Mauritius, 17 per 1,000 is about the average mortality. In Ceylon, about 19 per 1,000. In India (Bengal), the Medical Department has not been assisted sufficiently yet, nor have the changes recommended been carried out; but all is progressing slowly towards a better state of things. In Australia, the mortality generally is 11 to 14 per 1,000 men. In New Zealand, 13 per 1,000.

Transactions of Branches.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

ON THE TREATMENT OF BRONCHITIS AFTER MEASLES.

By FREDERICK J. BROWN, M.D., Rochester.

[Read September 25th, 1863.]

MANY years ago, I attended a child for what I believed to be pneumonia after measles; but I found bronchitis, with collapse of a portion of lung, on a *post mortem* examination. I used antiphlogistics in that case. Under a different kind of treatment, cases that have presented grave symptoms have recovered.

The remedies that I employ are the liquor ammoniæ acetatis internally, and spirits of turpentine externally. I give the liquor ammoniæ acetatis every hour in doses of two drachms, in an equal quantity of water. The spirits of turpentine I order to be mixed with equal quantities of hot water, and to be rubbed over the entire trunk every four hours. Amelioration of the symptoms takes place within twenty-four hours, and the child is out of danger in the course of a few days. It is useful to give tartar emetic in small doses after the child has been under the foregoing treatment for three or four days, but not sooner.

I have lately saved, by the treatment that I have related, two children, who would most surely have died under my usual antiphlogistic treatment.

Reviews and Notices.

ON THE ARCUS SENILIS, OR FATTY DEGENERATION OF THE CORNEA. By EDWIN CANTON, F.R.C.S., President of the Medical Society of London, etc. Pp. 228. London: 1863.

MR. CANTON is well known to have paid considerable attention to the remarkable appearance known as the arcus senilis; and he has now collected into a volume the various papers on the subject which he had previously placed before the profession in the pages of the *Lancet*.

The book is divided into eight chapters.

In the first chapter, Mr. Canton gives a General and Microscopical Account of the Arcus Senilis. He refers to the notices of this appearance which occur in various authors—it having been described as far back as the beginning of the eighteenth century; and describes the mode of its formation. Microscopical examination shows, as has now for some years been recognised principally in consequence of Mr. Canton's statements, that the arcus consists in a fatty degeneration of the cornea; and still more, that it is associated often with degenerative changes in the heart and arteries. The arcus senilis would appear to be confined to man; at least, Mr. Canton has not been able to find any proof of its occurrence in horses or birds, although some observers have described its occurrence in these animals. Nor is it congenital, although certain authors have described arcus in newly-born infants. What has been described as arcus in these cases is, according to Mr. Canton, the remains of the intrauterine opaque covering of the cornea.

In the second chapter, the author treats of the Hereditary Occurrence of the Arcus. That it is

hereditary in some cases, appears proven; but, as has been already said, it does not appear to be congenital. The author relates the case of a lad aged 16, under his care at the Westminster Ophthalmic Hospital, in whom the corneal arcus was strongly developed in both eyes. The lad's father, aged 56; his mother, aged 53; and two brothers, aged 20 and 12, all had arcus in both eyes; while in a sister aged 6, it was absent. In another instance, a gentleman who had had the arcus or annulus in both eyes from the age of 22, informed Mr. Canton that his father and grandfather had both presented it at as an early an age as himself. The early occurrence of the arcus is spoken of also as having been observed by several authors.

In the third chapter, the author speaks of the Formation of an Arcus or a Circulus, the Result of Disease or Injury of the Eye. Some cases of corneal degeneration arising from inflammation of the eye are referred to. The chief peculiarity in these instances is, that in general the arcus is not developed in both eyes, as in cases where it is the result of a constitutional or hereditary predisposition.

In the fourth chapter, Mr. Canton notices the occasional Non-occurrence of the Arcus in Old Age. After some general and interesting remarks on longevity, Mr. Canton notices "cases which present us with instances of those who have lived more than a hundred years without the establishment of the arcus"; while, on the other hand, there are instances "where it has shown itself as a complete circle on the eyes of those who have not attained to the moiety of that age."

"In the latter case, likewise, I have proved by dissection that the same form of change—when it has invaded the eye to the extent I have now mentioned—has also involved important internal organs. Beyond this, it will be shewn, in one example of a centenarian, that, with the absence of the sign *without*, the changes *within* were wanting; whereas we well know that, under the ordinary circumstances of age, a definite set of senile metamorphoses may be almost confidently looked for on *post mortem* examination."

Among several instances of the absence of the arcus in old age, Mr. Canton refers to some of the oldest inmates of Chelsea Hospital, whose eyes he had the opportunity of examining a few years ago. He found the arcus entirely absent in fifteen instances, where the ages varied from 68 to 96 inclusive. In one man, who had reached his hundred and fifth year, a very slight circle only was presented in each cornea.

In the fifth chapter, there is an Account of Fatty and Calcareous Degeneration of the Costal and Laryngeal Cartilages associated with the Arcus. The ossification of the cartilages, commonly regarded as a phenomenon of old age, is believed by Mr. Canton to be less a consequence of senile than of pathological changes. For his arguments on this point, however, we must refer our readers to the book.

In the sixth and seventh chapters, we have remarks on the Formation of the Arcus in the Intemperate and in those of Gouty Habit.

The last chapter consists of General and Additional Observations on the Arcus; and its Disappearance under Constitutional Treatment. As to the real value of the arcus as a pathological sign, Mr. Canton coincides with Mr. Paget, whose remarks he quotes.

"The arcus," says Mr. Paget, "seems to be, on the whole, the best indication which has yet been found of proneness to an extensive or general fatty degeneration of the tissues. It is not, indeed, an infallible sign thereof; for there are cases in which it exists with clear evidence of vigour in the nutrition of the rest of the body; and there are others in which its early occurrence is due to defective nutrition consequent on purely local causes, such as inflammatory affections of the choroid or other parts of the eye; but, allowing for such exceptions, it appears to be the surest as well as the most visible sign and measure of these primary degenerations."

With regard to the removal of the arcus, Mr. Canton observes:

"There can be no doubt that much may be accomplished, in process of time, by means of medical treatment, where it is ascertained that such conditions are present as tend towards a general or systemic decadence; and in which is not uncommonly implied an atrophising state of many and diverse tissues. Numerous cases of this description have come under my observation, during the past twelve years; and it is extremely interesting to have occasion to notice that *pari passu* with amendment of health has been the *disappearance of the arcus*, in those instances where this symptom was present, and by its presence had afforded the clue to the peculiar character of the mischief in progress." (P. 226.)

Before concluding our remarks on this work on a pathological subject, we must direct Mr. Canton's attention to a pathological phenomenon presented by his book itself. We refer to a morbid deposit of commas, which pervades it, and interferes with the easy reading of it. Sentences punctuated in the following manner are not rare in the work:

"When we reflect on the gross, and artificial life led by the, habitually, intemperate man: the wear, and, tear to which his constitution is subject through the continued antagonism between lethargy, and, stimulation, induced by the introduction of narcotic, and, irritant fluids: the constant excitation of thirst, and, sure subdual of hunger: the waste of nervous energy, and, loss of muscular power, etc., can we wonder that he should, as a common rule, fall an early, and, easy prey to this self-inflicted, slow poisoning; and, might we not, fairly expect that, after death, the circulating fluid, with the various tissues of the body, would afford abundant evidence of chemical, and, physical changes, stealthily, but, surely wrought by this toxæmic power?"

We point this blemish out to Mr. Canton's attention in good part, and in the confidence that he will procure its removal in another edition. That it is not his error, but rather has been committed by some one to whom the revision of the book has been entrusted, appears likely from the fact, that the words derived from *αἷμα* (blood), as toxæmia, hæmorrhage, pyæmia, are constantly spelled with α—thus, toxæmia, hæmorrhage, pyæmia, etc.

These minor defects, however, are no drawbacks to the general excellence of the book, in which, we can assure our readers, will be found the most complete and instructive account that has yet been given of the arcus senilis, written by a surgeon who has made this condition the object of long and careful study.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN. We have been requested to state that the present collector of this Society is Mr. C. J. F. Renton, who has been appointed in the place of Mr. Cheshire, who has resigned.

Progress of Medical Science.

STATE OF THE EYES IN PROGRESSIVE MUSCULAR ATROPHY. A man aged 44, a morocco-leather manufacturer, was admitted on September 19th, 1862, into the Charité Hospital, under the care of M. Bouillaud, on account of an affection which he had had during seven or eight years. His illness began with a sense of numbness and weakness in the little finger of the left hand. The whole hand gradually became the seat of analogous symptoms, which also extended to the forearm. At the same time, both the dorsal and the palmar regions of the hand became emaciated; and the muscular power became diminished, until, during the last two years, it was completely lost. The wasting extended along the inner side of the forearm. The right hand also became affected; and on this account he came into the hospital. On admission, the dorsal aspect of the forearm presented along its whole length a depression which terminated at the level of the lower end of the radius, and was bounded by the radius and ulna; no muscular mass could be felt in it. The back of the left hand presented a flat surface. The hand was in the same axis as the forearm; but the fingers were semiflexed. The muscular masses to the external side of the radius, in the upper half, were nearly normal; while those on the anterior and posterior aspects and external edge of the ulna were quite wasted. The palm of the hand was much emaciated; and the anterior aspect of the thumb was entirely deprived of muscles. The movements of flexion of the fingers and abduction of the thumb were completely abolished. Involuntary contractions and spasms often took place in the muscles of the arm and forearm. In the right arm, there was wasting of the ulnar edge of the forearm; the hand was in a state of semiflexion; there were no muscular contractions; flexion and extension of the elbow could still be performed. The movement of abduction of the thumb was limited. The electromuscular contractility and cutaneous sensibility were preserved.

During three or four weeks, the patient had perceived twitchings at the external angle of the left upper eyelid, and said that he could not see so well nor at so great a distance as before. At the first view, the right eye appeared to project rather more than the left. The two palpebral apertures were equal in size; the contractions occurred with equal force on both sides. The left pupil was less by half than the right; the diameter of the latter was three millimètres, while that of the left was only two millimètres. The pupils contracted well under the influence of light, but the left always became narrower than the right; both were notably dilated when any point of the body was pinched. The culminating point of the convex surface of the left cornea was less distant from the plane of the iris than in the right eye.

The treatment consisted in the application of cold douches every morning, with Bordeaux wine, lactate of iron, and electrification of the limbs. The patient left the hospital, and was readmitted, several times; but his condition was scarcely altered. When last seen, his pupils had the same diameter; they were both considerably contracted, even in the dark; they scarcely showed any movements under the influence of light or of pinching parts of the body. Their diameter was about the same as that of the left pupil when the first examination was made. Both corneæ were equally flattened; and vision was weak in both eyes.

M. Voisin, who relates the case, gives the following interpretation of the phenomena. The atrophy affected principally the flexor muscles—that is to say, those which receive their innervation from the median and ulnar nerves. Now the median nerves arise from the

seventh and eighth cervical, and the ulnar from the eighth cervical and first dorsal. On the other hand, modern researches have shewn that the nervous fasciculi become atrophied by diminution in the calibre of the nerve-tubules, and that the anterior roots of the corresponding spinal nerves present the same lesion. The existence, in the patient, of the oculo-pupillary phenomena above described, appears to M. Voisin to be a probable consequence of the lesion of the anterior roots of the first dorsal nerves on the left side; the fact being absolutely identical with what is observed in the dog after dividing the anterior roots of the first two dorsal nerves. The anatomical connection of these nerves with the cornea and iris is, M. Voisin observed, established in two ways; by the filaments which the first dorsal nerve supplies to the vertebral artery, and which anastomose within the skull, with the filaments of the carotid nerve, one of the three roots of the ophthalmic ganglion, which is the source of various nerves supplied to the cornea and iris; or, more probably, by the anastomosis of the first dorsal nerves with the cervical ganglia of the sympathetic. If, on the other hand, we take into account the well known influence of the two dorsal spinal nerves on the movements of the iris—their dilating action on the pupil, opposed to that of the motor oculi—we have almost all the elements necessary for solving the problem. M. Voisin believes that the following was the order of the morbid phenomena in the case related: atrophy of the left anterior root, or rather roots, of the first or first two pairs of dorsal nerves; diminution or absence of the nervous influence on the ciliary nerves; paralysis of these nerves; loss of equilibrium between antagonistic action of this nerve and that of the cervical sympathetic; predominance of action of the motor nerve of the eye; and consequent contraction of the pupillary aperture.

M. Voisin points out also two interesting facts in this case. He first refers to the absence of elevation of temperature in the atrophied limb; which would indicate, according to M. Cl. Bernard, that the great sympathetic and its ganglia were uninjured, and that the vasomotor nerves were consequently not paralysed. The second fact noticed is the production of dilatation of the pupil by irritation of the skin of any part of the body. It seems to show that, in this patient, the atrophy of the anterior roots was not complete; the experiments of M. Cl. Bernard having shewn that dilatation of the pupils completely ceases when the anterior roots have been completely divided.

M. Duchesne of Boulogne has made some remarks placing slight limit on the deductions of M. Voisin, regarding the probable lesion of the anterior roots of the nerves; and has stated that he has observed similar phenomena in several cases of wasting palsy. (*Gazette des Hôpitaux*, 19 Sept., 1863.)

CYSTS IN THE VAGINA. Dr. Saexinger relates three cases of cysts in the vagina as having occurred within a short interval of time in the clinical wards of Professor Seyfert of Prague. The affection is a rare one; but few instances having been previously recorded.

The first case occurred in a domestic servant, aged 23, unmarried. She had never borne children, and had always menstruated regularly. She had been admitted into hospital on account of some internal disease; and, during her convalescence, she complained of having had for a year, especially after menstruation, a discharge which left a yellowish stain on her linen. On examination, there was found to be slight ante-flexion of the uterus with uterine blennorrhœa; and on the left side of the vagina, about half an inch behind the entrance, were two round smooth distended tumours of the size of chestnuts; they were not tender on pressure. These cysts were punctured and emptied on the next day; their contents consisted of a clear albuminous fluid. The punctures were enlarged, and the walls of the cyst

were found to be smooth and thick. Nitrate of silver was applied several times to the cavities of the cyst, with the effect of causing their disappearance; and the patient was soon discharged cured.

The second case was that of a woman aged 32, who had been treated in the syphilitic ward for vaginal blennorrhœa, and was transferred into the gynecological department. The patient stated that for a year and a half she had been aware of the existence of a tumour in the vagina, but that it had never given her the least trouble. On examination there was found, about an inch behind the entrance of the vagina, on the posterior wall, a perfectly round, firmly distended, smooth swelling, of the size of a walnut; its colour was the same as that of the vagina; and it was not in the least painful to pressure. Professor Seyfert punctured the cyst with a pointed bistoury, and gave exit to a fluid of the same character as in the preceding case; he then enlarged the opening and excised a small elliptical piece of the wall of the cyst. The cavity of the cyst was smooth, and its walls were firm and thick. Repeated applications of nitrate of silver soon caused its disappearance.

The third patient, a woman aged 21, had a smooth, firm, round cyst, as large as a walnut, situated high in the upper part of the vaginal wall. It was punctured, and gave exit to fluid of the same character as already described. An elliptical piece was removed; and a cure was effected, as in the other cases, by the application of nitrate of silver. (*Spitals-Zeitung*, 26 September, 1863.)

SYRUP OF COPAIBA. Dr. Trideau has recently, in a memoir laid before the Academy of Medicine, spoken of the treatment of croup and diphtheritic angina by copaiba; and has referred to a preparation by which he was enabled to overcome the dislike of children to the medicine. M. Du May, *pharmacien* at Laval, has since published the formula for the syrup. It is made with balsam of copaiba, 167 grammes; calcined magnesia, 9 grammes; simple syrup, 320 grammes; and the yolks of four eggs. The yolks are triturated with the magnesia; the copaiba is then added and intimately mixed; and then the syrup. The preparation is said to be capable of being well preserved, to have no taste, and to agree well with the stomach. M. Du May suggests that, in order to obviate repugnance to the use of the medicine arising from the known ordinary application of copaiba, the preparation should be called syrup of Brazil balsam. (*Bull. Génér. de Thérap.*, 30 Août, 1860.)

TREATMENT OF NERVOUS VOMITING BY ELECTRICITY. Dr. Bricheteau has published three cases of nervous vomiting, which had resisted all ordinary treatment, but were cured by electricity.

The first case was that of a hysterical girl, under M. Monneret's care in the Necker Hospital. She had had dyspepsia for some time, and during a month had become worse, and vomited her food after each meal. Independently of the disorder of the digestive functions, she had general anæsthesia and all the signs of chlorosis. In spite of the use of Seltzer water, cold douches twice daily, and tonics, the state of the patient was the same at the end of a month. A part only of the food was vomited after each meal. Blisters were applied on two occasions; the actual cautery was applied twice; syrup of sulphate of strychnia, iced milk, and subnitrate of bismuth, were all tried; but with no better result. The vomiting, on the contrary, became more abundant, and the patient began to grow thin. Peppine, tincture of iodine, and powder of nux vomica, all were useless. Dr. Bricheteau then tried electricity. The two moistened conductors of Legendre and Morin's apparatus were applied to the epigastrium at each meal-time, a quarter of an hour before the meal was commenced, then about the middle of the meal, which was interrupted for five minutes for the purpose. The current was at first

applied feeble, and gradually increased in intensity. When the electricity had been applied, the patient digested well. If the current were not strong enough, or the application of sufficient duration, the vomitings returned; they occurred also whenever the electrification was suspended. Those alternations of relief and distress, which could be produced at will, left no doubt as to the value of the electricity. It was not until the end of two months of treatment that the vomiting completely disappeared; but the cure was complete, for at a later period other hysterical symptoms appeared, but were not attended by vomiting.

The second patient, also under M. Monneret's care, was a hysterical female, who vomited after every meal; the vomiting, as in the first case, being unattended with pain or efforts. Milk diet, iced drinks, tincture of iodine, and powder of nux vomica, all failed in this case as in the other. Electricity was applied, but more decidedly than in the first instance; and the vomiting was definitely arrested at the end of six weeks.

The third patient was a chlorotic and scrofulous female under the care of M. Natalis Guillot. She vomited, without pain or effort, all the ingesta, about an hour or two after each meal. Drink especially was immediately rejected. Almost all the remedies referred to in the preceding two cases were tried unsuccessfully. Electricity arrested the vomiting on the first day of its application; and the cure was complete in a fortnight.

Dr. Bricheteau also relates a case which occurred in the practice of M. Oré of Bordeaux; who obtained the best results from electrification of the epigastric region, not only in arresting vomiting, but in preventing painful distention of the stomach with gas after the ingestion of liquids, in a nervous patient.

The application of electricity to the epigastrium may be also tried in vomiting arising from other causes than hysteria and chlorosis; especially in the obstinate vomiting which sometimes attends pregnancy. It might also be employed in the vomiting which sometimes occurs in the first stage of pulmonary phthisis; the progress of which disease is accelerated by the previous impairment of nutrition. (*Bulletin Génér. de Thér.*; and *Gazette des Hôpitaux*, 5 Sept. 1863.)

SPONTANEOUS CURE OF FECAL FISTULA. Peter C., aged 41, a man of lymphatic temperament, was seized in December 1861, after exposure to cold, with *malaise* and nausea. The same evening, a spherical enlargement, of the size of a hen's egg, was observed to be suddenly produced in the right groin, during attempts at defecation. During the night and the next day, he had colic, diarrhoea, hiccup, and vomiting, in spite of the application of fifteen leeches and of poultices to the tumour. On the third day, the swelling was opened by a medical practitioner, when, according to the patient's account, there escaped some black fetid blood. He subsequently had two or three stools; and it was not until a day or two afterwards that he observed stercoraceous matter to escape through the opening. From this time the food escaped undigested through the wound, two or three hours after being taken. The patient, tormented by insatiable hunger, entered the civil hospital at Algiers on December 29th. The most pressing indication was to restore the regular course of the food, so that nutrition which was seriously compromised, might be effected. Having discovered the two ends of the intestine, and dilated the fistulous orifice with prepared sponge, M. Bertherand sent for Dupuytren's enterotome, in order to remove the projection which prevented the contents of the intestine from passing into the lower end. During, however, the delay in the arrival of the instrument, the edges of the wound came together, and the food (laxative injections being given) passed in part by the natural passage, and the patient regained strength and flesh. Cauterisation with nitrate of silver, followed by moderate

compression, aided the process of cicatrisation; and on March 7th, the patient was discharged cured, wearing a supporting bandage. (*Gaz. Méd. de l'Algérie*; and *Bull. Génér. de Thér.*, 30 Sept. 1863.)

UTERINE HÆMORRHAGES: THEIR RELATIONS TO MENSTRUATION. M. Gubler says that sanguineous discharge from the uterus, taken for premature menstruation, at the commencement of and during acute diseases, is merely a flow of blood comparable to the epistaxis which occurs in the early stage of fevers.

The doctrine generally taught concerning menstruation is, that at each monthly period, there is an action on the part of the ovary on the one hand, and of the oviducts and apparatus of gestation on the other. In the interval between the catamenial periods, an ovule, with its enclosing vesicle, is gradually developed in one of the ovaries. In about a month, the ovule has arrived at maturity; a flow of blood then takes place towards the generative organs, especially on the side on which the matured ovum lies. The Graafian vesicle swells up, becomes thinned at a point on its free surface, bursts, and discharges the ovum. At the same time, the corresponding Fallopian tube is erected and applied to the ovary, where it receives the ovule, and, if there be no obstacle, conducts it to the uterine cavity. The uterus participates in the congestion, and, under the influence of this hyperæmic state, its mucous membrane exudes blood in greater or less quantity. But, M. Gubler observes, this latter part of the phenomena is not indispensable to the regular accomplishment of the generative function; all obstetric authors, in fact, cite examples of females who have never been regular—that is, who have never observed the catamenial discharge, and who have yet become mothers. He has also met with a case shewing that ovulation may normally take place without any sanguineous discharge.

A woman aged 23, of strong constitution and general good health, died in the Beaujon Hospital from acute meningitis. She had never had any menstrual discharge; but, at the *post mortem* examination, the ovaries were found well developed, and containing corpora lutea as in females who have distinctly menstruated. There were eleven in the left ovary, and six in the right. In the left ovary, there was a quite recent corpus luteum; and the vesicle still contained a small clot of blood.

Thus the sanguineous discharge is merely an accessory circumstance of menstruation; and, on the other hand, it may take place independently of ovulation, or continue beyond it, in the physiological as well as in the pathological state. Discharges regarded as menstrual occur, in fact, in circumstances where evidence shews that ovulation is impossible; as in girls not arrived at puberty, who, at greater or less intervals of time, have discharges of blood simulating menstruation. M. Gendrin has observed a curious example of this in a family, in which all the female children had uterine hæmorrhage. The same peculiarity is often observed at the other extreme of life, in aged females who have long passed the period of cessation of the catamenia.

M. Gubler relates a case which seems to shew that in some circumstances the same cause may bring about ovulation and the discharge of blood, without one of these being necessarily subordinate to the other. A young woman, attacked with diffuse cerebro-meningitis, was taken in an insensible state into the Beaujon Hospital. The menstrual discharge began with the commencement of the symptoms of her disease, and continued till her death, which took place on the second day after admission, and the tenth of her illness. The autopsy shewed perfect cicatrisation of the follicle, and the formation of a corpus luteum, corresponding with the presence of recent clots in the uterine cavity. Thus was shewn the separation of the two orders of menstrual phenomena; the evolution of the Graafian vesicle, and its rupture, with the dis-

charge of a mature ovum; and on the other hand, the congestion of the utero-ovarian vascular plexuses and of the uterine cavity, with the discharge constituting the menstrual flux. On the one hand, the Fallopian tubes and uterus were still congested, and the latter was filled with blood which had recently escaped from the vessels; on the other hand, the Graafian vesicle was sufficiently advanced in its transformations to have ceased for ten days to be the seat of active phenomena. The ovary had accomplished its functions in the early part of the menstrual period; while the rest of the generative apparatus continued to be the seat of active hyperæmia and abundant sanguineous exhalation during a week. (*Gazette des Hôpitaux*, 26 Sept. 1863.)

COMBINATION OF LITHOTOMY AND LITHOTRITY. M. Alquié of Montpellier sums up a memoir on this subject with the following conclusions. 1. Where lithotomy appears to be indicated, in adults or old men affected with calculus of moderate size—from three to five centimètres (1.2 to 2 inches) in thickness—the stone should be also crushed. 2. The same thing should be done in the case of children and young persons in whom the stone is of similar size; if the stone be small and the case uncomplicated, lithotomy may be practised at once. 3. When the stone is of large size—six centimètres (2½ inches) or more in thickness—or in special cases, lithotripsy should be performed through the opening in the perinæum. This may also be done when there is an urinary fistula in the perinæum, which can be conveniently dilated. 4. But when the stone is of moderate or large size, lithotripsy should be first attempted through the natural passages; by which, in some circumstances, any further operation may be avoided. (*Bull. Génér. de Thér.*, 15 Sept. 1863.)

CEPHALHEMATOMA IN AN INFANT, SUCCESSFULLY TREATED BY PUNCTURE. Dr. Isnard of Gemenos relates the case of a child, aged fourteen days, which had a large sub-pericranial cephalhematoma. While the infant was asleep, Dr. Isnard rapidly introduced an exploratory trocar into the apex of the tumour. No pain was produced, as the child was not awakened. About forty-five grammes of blackish slightly thickened blood escaped through the cannula. When the child awoke, it took the breast without crying or hesitation. When the instrument was removed, the puncture was almost imperceptible. Some agglutinative bandages were applied over the right parietal eminence (the seat of the tumour), so as to maintain the walls of the cavity in contact without exercising undue pressure on the bones. Six days afterwards, the walls of the tumour had become completely adherent; there had been no local nor general disturbance. Sixteen days after the operation, the cure was complete. In order that the operation may be successful, M. Isnard observes that it should be performed early; i.e., near the commencement of the second week, when the tumour has gained its full size, the vessels which were the source of the hæmorrhage have been obliterated, and the blood has not become too thick to escape through the cannula. (*L'Union Méd.*; and *Bull. Génér. de Thér.*, 15 Juillet 1863.)

A similar case has been recorded by M. Barrallier of Toulon. On October 15th, 1856, he was called to a male infant eleven days old, in whom nothing abnormal was observed at the time of birth. At the above mentioned date, however, there was on the right parietal eminence a tumour, which had been observed for the first time on the preceding evening. It was round, fluctuating, without pulsation, and had a diameter of six centimètres from before backwards, and five from above downwards. It was covered by healthy skin, and surrounded by a bony rim which was more prominent above. It did not seem to give any trouble to the child, in whom all the functions were normally performed. In

spite of pressure, the size of the tumour had become much greater on the next day. Dr. Barrallier then opened it with an exploratory trocar. A large quantity of dark blood escaped through the cannula with the aid of moderate pressure. The child then became pale, its head lay on its shoulders, and its eyes closed; but stimulating frictions soon brought about reanimation, and it took the breast with avidity. Over the site of the tumour, the limits of which could now be determined only by the presence of the osseous ring, pressure was established by means of disks of agaric. Two days afterwards, a few drops of pus appeared at the point of puncture. The suppuration, however, was not of long duration; the wound rapidly healed; and the child was discharged cured at the end of October. (*L'Union Méd.*; and *Bull. Génér. de Thér.*, 15 Août 1863.)

British Medical Journal.

SATURDAY, NOVEMBER 7TH, 1863.

DISEASED MEAT; ITS EFFECTS ON MAN.

THE readers of the daily papers, no doubt, every week notice the fact that a quantity of meat "unfit for food", as it is stated, is seized in the public markets of London, and condemned and destroyed by authority. We need hardly say, that the fact is indicative of a state of things of serious importance to the public health. Professor Gamgee has for a long time past, in an especial manner, pointed out the great importance of this subject, on account of the enormous quantity of diseased meat which not merely finds its way into the market, but which is also actually consumed as human food. It has been again and again asserted, that by this consumption of diseased meat great injury has been done to the health of the people of this country; and that, in fact, the bills of mortality have been thereby increased.

The subject is therefore one, the consideration of which belongs immediately to our profession; and we would consequently invite especial attention to it, and ask our brethren to give us the benefit of their experience in the matter, so as to enable us to judge (if so it may be) what real amount of injury may be fairly attributed to the effects of this ingestion of "diseased" meat. We ask for an accumulation of facts on this point, because we are satisfied that many of the statements hitherto made respecting the injurious effects on the human economy of "diseased" meat are not supported by satisfactory evidence. We do not deny that such injurious effects may be produced; but we object (for the sake of the credit of our profession) to their being accepted and publicly declared to be positive facts, until such time as we have satisfactory evidence of their really being so. Those of our professional brethren, therefore, who have any facts at their disposal touching upon this point, will do great service by bringing them forward.

Considerable confusion has, we have no doubt, prevailed in discussions on the subject, in consequence of a want of clear definition of the term "diseased" meat. The Inspector of Markets may have a ready method of settling the question, and of pronouncing judgment; but, regarding the matter from our point of view, there is clearly required something more distinct than the mere terms "diseased", or "unfit for food", which are used indifferently.

We apprehend that the meat which is termed "diseased" or "unfit for food" must, for our better consideration of it in respect of its influence on man's health, be brought under at least three separate heads. In the first place, we have meat which is rendered "unfit" from the fact of its having undergone putrefaction; this meat may have been originally first-rate, or it may have been "diseased"; but it is now unfit solely by reason of its putridity. Next, we have meat which is, to all appearance, excellent meat, but being the meat of animals which have died of, or have been killed whilst suffering from, pleuropneumonia, or some other acute febrile disease, is in consequence thereof condemned as unfit for food, although it may, to all appearance, be in itself perfectly sound and good meat. Then, again, we have meat which is the product of animals which have died of chronic disease—pale, wasted, sickly-looking meat. And, lastly, we have that especially important class of "unfit" meat, which is rendered unfit by the presence in it of parasitic animals.

Now, a little consideration will, we think, satisfy our readers that some definition of this kind, of "meats unfit for food", is absolutely necessary for a scientific consideration of this matter. When we learn (as we do from Professor Gamgee) the enormous amount of "diseased" meat which comes into our market, it becomes a matter of serious importance to the community at large, that we should know whether or not the whole of this diseased meat is unfit for food; whether the whole of the enormous quantity which we are told is being daily consumed in this country, is or is not injuring the health of the people; or, again, whether any, and if any, what portion of this "diseased" meat is and may be eaten with impunity; and whether, again, cooking does or does not destroy any of the deleterious agencies which may be present in the meat.

If all this enormous amount of meat, which is pronounced as diseased, be really unfit for human food; if its consumption really act injuriously to the public health; then it is certain—if Professor Gamgee's statistics are correct—that a very large portion of the supply of meat produced for consumption in this country must be cut off, at least so long as diseases rage among our cattle. Indeed, the quantity of meat so cut off would really be a great national loss and injury, and, in fact, an irreparable loss; for it would appear that foreign countries could not ac-

tually supply us with the equivalent quantity of meat required.

We see at a glance, therefore, the serious importance of the subject. We are placed on the horns of a dilemma. If it be clearly shewn by facts, that the consumption of all this "diseased" meat is injuring the community, then, of course, the sale of diseased meat must be prohibited. But, if the sale of "diseased" meat be prohibited, then an enormous amount of animal food will be immediately withdrawn from the sum-total of our "meat", and consequently much injury, as we may fairly suppose, be in another way inflicted on the health of the community.

Our business, therefore, is clear in this matter. The facts which we require to know are plain enough. We want to know, for example, whether the meat of animals which have been killed, whilst suffering from pleuropneumonia or other acute inflammatory disease, is "unfit for food"; *i.e.* is incapable of nourishing, or capable of producing disease in man; or whether such meat may, when properly cooked, be safely used as food. We want to know whether or not the existence in the body of the animal of that essential element, whatever it be, which produces the febrile disease, can so affect the "meat" as in any way to render its consumption, when it is cooked, injurious to the health of man; whether or not, for example, the flesh of a splendid well-fed ox is rendered "unfit for food" by the fact of the animal having been attacked with the febrile disease; whether the essential elements of the disease, or any of the abnormal products resulting from its presence in the body, do actually survive the cooking of the meat, and so possibly pass into the human body; or whether their presence in the animal so alters as to deprive its flesh of nutritious properties?

Then, again, in respect to that other very different class of "diseased" meats, which are so called from the presence of parasites in the body of the animal, we have to inquire whether the presence of the parasites has really injured the flesh in any "essential" manner; or whether their presence is to be regarded as acting injuriously only mechanically, and in so far as, by living upon, they waste the body of the animal; whether, in fact, the flesh of animals in which such parasites exist is, *minus* the parasites, healthy and nutritious food. And then, if we can satisfy ourselves that such flesh, *minus* the parasites, is nutritious food, we have to consider the very serious point: Are these parasites destructible and actually destroyed by due and proper cooking? This question is one of the gravest importance, because we have now the most positive proofs that parasites are introduced with food into the body of man and animals; and it is a well known fact that the quantity of "measly" parasitic pork, etc., which is eaten in the country is very considerable indeed. If it be really true, as seems indeed almost certain, that

the proper cooking of parasitic meat destroys the vitality of the parasite, then we have manifestly a certain and simple cure for the prevention of those evils which result from the eating of such vile meats; and if we cannot arrest the sale of such meat, we can, at all events, enlighten the community as to the proper mode of preventing the evils which may result from its consumption.

With regard to that other class of meat "unfit for food"—viz., that which has undergone putrefaction—we need make no remarks, as the fact speaks for itself plainly enough.

We call the attention of the profession to the consideration of these questions, because their due solution is manifestly of great importance to the well-being of society at large, and because they have assuredly not yet obtained from the profession that degree of attention which they clearly demand; and we feel bound, in doing so, to acknowledge the great labours, in this direction, of Professor Gamgee, who has certainly here been the foremost of inquirers and observers. We do not agree with all the deductions arrived at by Mr. Gamgee; but we gladly seize this opportunity of stating that in this matter the veterinary professor has supplied the profession with a most valuable amount of information, and that his investigations have opened up in an especial manner for our consideration that most important subject, the effects of "diseased" meat on the health of the community.

IRIDECTOMY.

It may be well that we should state in a few words the reasons which have induced us to call the attention of the profession in so particular a manner to the subject of iridectomy. It is impossible to converse on this operation with any half-dozen surgeons without at once discovering that it occupies in the opinion of the profession a most anomalous position. Thus, for example, we find, that some surgeons consider the operation as one of the greatest blessings bestowed on modern surgery; and that other surgeons of the highest authority deem it an operation not only useless, but worse than useless. More than this, iridectomy seems to occupy this remarkable position in the history of modern scientific surgery, viz., that the principles upon which it is founded are not capable of clear and simple definition, as they are in the case of other recognised surgical operations.

Ask the surgeon why he cuts off a leg, ties an artery, or extracts a cataract; and he will give you a plain and ready answer, comprehensible to every medical mind. But it is not so with iridectomy.

The morbid conditions which are said to demand the performance of the operation; the mode of action of the operation itself—that is to say, the

theory of its beneficial mode of action—are still overshadowed with difficulties; at least, not one surgeon in fifty can give you any plain and satisfactory explanation of the thing. Moreover, when we come to interrogate eye-surgeons themselves upon the subject, we find amongst them, also, the greatest, and, indeed, the most remarkable, discordance of opinion. We find oculists of the highest celebrity who consider iridectomy a most invaluable discovery, and who daily practise it; and then, again, we find others who, after having practised it and given it a trial, conclude it to be an inadmissible operation, and have determined never to resort to it again; and we also find specialists—eye-surgeons—of no mean understanding, who have never resorted to iridectomy, and who utterly condemn the operation—not blindly and out of mere stupid opposition; but on three grounds: 1. From what they can judge of the operation on general principles of surgery; 2. From what they have witnessed of the effects of the operation done by the hands of other oculists; and 3. Because they have a firm belief that many of the cases of defective vision which have been subjected to iridectomy would have recovered better had they been left to nature's own method of cure.

But we need do no more than refer our readers to Mr. Bowman's letter published in the *JOURNAL* of last week, in order to obtain the full assurance of the necessity for a further investigation of this subject. Mr. Bowman tells us, that every week he has to deplore the consequences which ensue from the ignorance of practitioners respecting the conditions of the eye which demand the performance of iridectomy. From this we must conclude, that the great body of the profession are really completely ignorant "of the state of the eye, which should awaken their suspicions, so that a timely remedy may be applied." And, again, Mr. Bowman tells us, that we have yet fully to work out the problem; viz., "Under what limitations, and at what stage is it to be performed, and how best are its advantages to be secured?" We have "to define still more the natural history of the disease, and the indications for the operation under its various stages and complications."

Hence, then, we have, it appears, an operation which, in the hands of the most skilful oculist, is found to be a blessing to humanity; but whose value is seriously depreciated, or rather overlooked, by the profession at large, because practitioners in general are ignorant of the conditions of the eye which require its performance; and, moreover, we find that "the natural history of the disease, and the indications for the operation under its various stages and complications," have still to be defined. We have still a large body of the profession who cannot comprehend the theory and principles of the operation; and we have a large body of practitioners who overlook the conditions of the eye which require

the operation; and we have authorities, eye-surgeons, who repudiate the operation as worse than useless.

We, therefore, as promoters of scientific medicine, have been forced to the conclusion, that further investigation is required on this subject, and that light may perchance be thrown by discussion into the complication above described; and have, consequently, called especial attention to the operation of iridectomy, prompted, we will confess, by this serious consideration—that scarcely can it happen, that an operation like iridectomy should be always performed without serious consequences to sight; and that, therefore, as the cases in which the operation is required are still in want of a full definition, it must be a matter of grave doubt whether an operation of such a character is one which could, under present circumstances, be safely entrusted to the hands of the profession at large. Admitting that the statement alleged is correct, that there are early conditions of glaucomatous disease which are greatly alleviated or removed by iridectomy, we have still a great difficulty to overcome, according to Mr. Bowman's own showing; viz., we have yet to define more clearly what these conditions are; and we have his word for it, that practitioners in general are at present incapable of appreciating those conditions.

Such being the position of the case, it does seem to us, that as iridectomy is a surgical manœuvre which may produce most serious results—even total destruction of vision—and as the indications for its performance are still far from being defined and settled, it behoves the promoters of it to popularise and lay down the principles and the rules which guide them in the performance of it.

Moreover, it should be noted that iridectomy is now an operation practised by surgeons in maladies totally different from that—viz., early stages of glaucoma—for which, as we understand Mr. Bowman, it is alone especially applicable. We have now iridectomy for recurrent iritis, and we have iridectomy associated with extraction of cataract. But recurrent iritis and cataract have clearly no necessary connection whatever with glaucoma; although assuredly, when the profession hear of the operation of iridectomy they invariably connect it in some manner with glaucoma. Nothing, therefore, is more evident than that this operation requires elimination from the confusion and obscurity in which it is at present involved.

Mr. Bowman, it is true, tells us of the excellent results of the operation in his hands; but then other observers give a different account of the operation; and we therefore ask for further information on behalf of the profession.

VITAL STATISTICS OF IRELAND.

THE Commissioners appointed to take an account of the population of Ireland for the year 1861, have presented their report upon the Vital Statistics of Ireland; and give us the following information:—

THE DEAF AND DUMB.

According to the provincial summaries, the proportion of the total deaf and dumb were to the population—in Leinster, 1 in 1,301; in Munster, 1 in 1,098; in Ulster, 1 in 1,123; in Connaught, 1 in 1,256; and for the kingdom in general, 1 in 1,176. The proportions, however, vary somewhat, both as regards the congenital and acquired cases, also with respect to their civic and rural distribution. Of the true amount of deaf-dumbness arising from what may be termed natural causes, such as hereditary predisposition, consanguinity, etc., the proportion afforded by the present census is 1 in every 1,370 of the population, or 1 in every 1,983 in the civic, and 1 in every 1,274 in the rural districts—the sexes being 100 males to 80.58 females. Among the acquired cases produced by accident or disease occurring after birth, the proportion is only 1 in 8,307, varying so slightly as from 1 in 8,158 in the civic to 1 in 8,345 in rural districts—the sexes being 100 males to 102.34 females. The transmission of mutism by hereditary taint or family peculiarity has been fully established by these returns. The tables show that the morbid action was transmitted with greater intensity through the father than the mother. It is remarkable that, while mutism is often found in several members of a family derived from a common stock, the defect is comparatively seldom transmitted direct from parents to children. There has been a great increase of education amongst this class of afflicted persons. The Commissioners, who were anxious to obtain general information upon this part of the statistics, addressed letters to the chiefs of several of the statistical bureaux of Europe and America, asking for particulars upon the matter. The replies shew that in a population of 144,424,107, the sexes being 71,896,750 males and 72,527,357 females, and comprised of a great variety of races—Celts, Saxons, Normans, Anglo-Saxons, Anglo-Americans, Slavonians, Norse, Scandinavians, Italians, French, Germans, Flemish, Dutch, free coloured races, slaves of African origin, North American Indians, and even Lapps—the total number of deaf and dumb was 94,670, or in the proportion of 1 in every 1,526 of the population, and that the proportion of the sexes of this class was 78.06 females to 100 males. This ratio to the population varies from one in 443 in Savoy to 1 in 2,714 in Holland.

THE BLIND.

There were as many as 6,879 persons totally deprived of sight, of whom 3,149 were males and 3,730 females, or in the proportion of 100 males to 118.45 females. Of these persons 1,393 were in the civic districts—in which localities most of the institutions for the blind are situated; 4,566 persons were in the rural districts; and 920 were inmates of workhouses. The number of blind is less by 708 than in 1851. But in consequence of the decrease of the people during the last ten years, from 6,552,385 to 5,798,967, the absolute proportion of the blind to the population is now somewhat greater than at the former period, being 1 in 843. The corresponding members of the different statistical societies state that, in a population of 144,424,107 spread over 21 different countries, the total number of blind was 114,002, or 1 in every 1,267 persons. But this proportion varies from 1 in 2,489 in the States of America to 1 in 540 in Norway. More than one half of the blind of all ages and sexes were married, viz.: 3,690 to 3,179 unmarried, the sexes of the former being 1,811 males and 1,879 females;

these results correspond in a remarkable manner with those obtained in 1851, and show that the marriage state among the blind is, compared with a similar number of the seeing population, above the average. The years 1844 and 1845 marked the commencement of that great "epidemic constitution," during which both vegetable and animal life throughout Europe and America suffered so severely, and in which the order of events was as follows: Epizootics, epiphyties, epidemics, and finally all these contemporaneously for several consecutive years. Epidemic ophthalmia broke out among the paupers in the Athlone Union Workhouse in April 1848, cases being at the same time observed in the surrounding country parts, and in the town of Athlone. This was the first indication of that wide-spread inflammation of the eyes which formed a portion of the great "epidemic constitution," so marked in Ireland by the failure of the potato from 1845 to 1852.

LUNATICS, ETC.

The immense emigration during the last twelve years has, by diminishing the number of the healthy, young, and adult portion of the population, increased the ratio of the aged and decrepit, the lunatic and idiotic, the deaf and dumb, the sickly, the weak, and the blind left in the country; the latter class not being receivable by emigrant vessels. The total number of lunatics and idiots was 14,098, 4,118 more than those afforded by the inquiry in 1851. The returns for 1851 were probably in part deficient, the inquiry being then novel. But the increase of lunatic asylums from thirty-three in 1851 to forty in 1861, with an addition of 1,580 inmates, affords a more enlarged field for investigation as regards this class; and as to the greater proportionable number of lunatics and idiots, the remark made with respect to the deaf and dumb and the blind being relatively increased by the falling off of the population by as many as 753,418 persons during the past decade, is even more applicable in considering the circumstances of this class; for in the exodus of the Irish people, neither lunatics or imbeciles were included among the emigrants. According to the returns, the total number of lunatics in Ireland, on April 7th, 1861, was 7,065, the sexes being in nearly equal proportions. This is an increase of 1,991 over the returns for this class in 1851. The number of lunatics, idiots, and epileptics in gaols in 1851 was 286; at the time of taking the present census it was 299, of whom 188 were males and 111 females.

THE REGISTRAR-GENERAL'S RETURNS.

The sickness of the past quarter has been very remarkable. In the three months ending at Michaelmas last, 23,000 persons died, who, if the year had been as healthy as 1860, would have been living still. The deaths in the quarter were very nearly as numerous, as those of the summer of 1854, when cholera was slaying its hundreds daily. The returns for that season gave 113,843 deaths; those for last summer give 112,384.

The mortality was almost universally diffused. It was also mainly confined to children of tender years. The diseases which became so unusually active were the special diseases of children—scarlatina, measles, and *cholera infantum*. The whole year has been unhealthy; but the last quarter especially so, although the third quarter in the year is naturally the healthiest.

Very little is suggested in explanation of these

facts. The season was a peculiar one; but not apparently conducive to sickness. In respect of temperature, the Report of 1863 is hardly to be distinguished from the Report for 1860. Yet 1860 was one of the healthiest years known of late; whereas 1863 has been one of the unhealthiest. The price of food had nothing to do with this result. Wheat and potatoes were both cheap; nor was pauperism at a high standard. What then is the cause of this great mortality?

THE WEEK.

THE Manchester and Salford Sanitary Association is doing excellent service to society; for its weekly returns show at a glance the state of health of the population. This Association has existed for three years. Twenty-seven members of the profession have been engaged in giving the data from which the returns are compiled. The thanks of society are due to those gentlemen for their most useful labours. It has been resolved to issue in future quarterly reports, being an analysis of the weekly returns for the three months; and the first of these has just been produced by Dr. J. E. Morgan, the Honorary Secretary. From it we learn that the public health of Manchester is in a very unsatisfactory state. Scarlatina, small-pox, measles, whooping-cough, and fever are greatly in excess of what they were in 1862—in fact, about one-fifth more numerous. In the September quarter of 1862, there occurred 58 cases of scarlatina; whilst in the quarter just ended, the number is 602! Dr. Morgan concludes that

"The hard times through which the people have passed are beginning to tell upon them. That a population long accustomed to live well on high but hard earned wages will not flourish beyond a certain time, at any rate in full physical vigour, under the various depressing influences which have combined to assail them. And what are these influences? Poor fare, mental depression, crowded dwellings, and a sickly season. That the food upon which the poorer portion of the factory operatives have been forced to subsist was not such as they were brought up on and accustomed to none will deny. It seems reasonable, likewise, to suppose that inability to obtain full employment among a population little disposed to shirk the calls of labour, by depressing the spirits, has a tendency also to lower the health. As a natural consequence of low wages, houses and lodgings have been more densely occupied, and the never excessive supply of fresh air in the dwellings of the poor has been still more vitiated."

EVIDENCE which satisfies the Bethnal Green Guardians is not enough for the Poor-law Board. It is a happy thing that there is some check upon the outbreaks of local tyranny. The Guardians demand that the Poor-law Board shall dismiss Dr. Moore; but the Poor-law Board reply: "Your reasons are unsatisfactory, MM. Guardians. Whatever you may think about the value of the statements made by

you touching Dr. Moore, we don't think them enough to act upon." Mr. Fleming, the Secretary of the Board, thus addresses the local Guardians.

"The Board request that they may be furnished with more specific information as to the case referred to in your letter, and as to the connexion of Dr. Moore with it. The Board also request that the cases may be specified on which the Board of Guardians ground their charges against Dr. Moore: 1. Neglect of patients; 2. Making extraordinary claims for vaccination, and extra medical fees; 3. Determined opposition to, and public slander of, the Board of Guardians; 4. Getting up unnecessary inquests, for the purpose of degrading the parish, and bringing contempt on the poor-law system by public appeals to the benevolent; 5. Neglect and refusal to keep his books as ordered by the Poor-law Commissioners. Upon receiving this information, the Board will consider what course to pursue; namely, either to communicate with Dr. Moore, or at once to institute an official inquiry."

We have been requested to publish the following correspondence between Mr. Syme and Mr. Bowman.

5, Clifford Street, October 24th, 1863.

MY DEAR MR. SYME.—I fear your note in the *BRITISH MEDICAL JOURNAL* of this week is calculated to add seriously to the numbers of the blind in this country, unless you modify the expression of your opinion. I hope you will accept my personal assurance as worth something, that iridectomy is the certain and the indispensable method of arresting the glaucomatous state. The facts are *most positive* and most numerous which prove this, and do not admit of doubt. It has, therefore, given me real pain to see your great authority marshalled against it; as it is quite evident from your letter itself, that by "glaucoma," you mean the *last stage to which the disease has run*, when recovery is utterly hopeless, and sight extinct; whereas the operation of iridectomy is performed while it is in progress, and before the eye undergoes the destructive changes. These changes it arrests, and thus saves more or less sight, according to the stage the disease has reached; and according also to the variety or type of the disease, for there are several. All these have been so much elucidated within the last few years, that the indications for iridectomy have become very precise, and the results capable of being anticipated with as much certainty as can be done in any department of our uncertain art.

Pray, therefore, in the interest of those who are becoming blind through glaucomatous disease, relieve this inestimable (and, at present, the sole) remedy of the discredit which your high name must tend to throw upon it.

Always believe me,

Yours most sincerely, W. BOWMAN.

2, Rutland Street, Edinburgh, October 26th, 1863.

MY DEAR MR. BOWMAN.—As my opinion of iridectomy was deliberately formed from a serious consideration of the anatomical, physiological, and pathological conditions in question, I am glad to learn that you agree with me in thinking this operation of no use for the remedy of confirmed glaucoma. But, with regard to its employment as a preventive, or means of arresting the early symptoms, I would beg to suggest that in hands less respectable than your own, such an application might, and in all probability would, lead to the most unwarrantable interference. Indeed, if this were to become the established practice, no elderly dark-eyed lady or gentleman who experienced difficulty in reading small print after dinner, would be secure from the charge of incipient glaucoma, and be able either to deny the imputation, or reject the remedy.

I had no desire to obtrude my opinion on the pro-

fession; but, when asked by the Editor of the *BRITISH MEDICAL JOURNAL* to express my sentiments on a subject of public discussion, did not feel at liberty to decline doing so. I remain, my dear Mr. Bowman,

Yours truly, JAMES SYME.

5, Clifford Street, October 28th, 1863.

MY DEAR MR. SYME.—I confess I confidently hoped that on learning under how great a misconception of the subject you had written your note on iridectomy in glaucoma, you would yourself have been forward to correct in the same channel the expression of your opinion; but your reply of the 26th shows that I was mistaken. You do not seem to be aware how many persons are constantly losing their sight from the several forms of glaucomatous disease, or to credit my statement as to the accuracy with which these cases may in general now be recognised, or to have a thought of the reality of the remedy in question. So that I have no alternative, in the interest of truth and of those who suffer, but myself to explain in the same medium what I should very much rather have seen modified by yourself.

Of course, I have not a wish to influence your opinion otherwise than by sound reasons; but my letter of the 24th was written under the impression of the pleasure I had always had in our personal intercourse. I hope, and quite believe, that some day you will freely admit yourself to have been in error in this matter. How I wish you could see some of our cases!

Yours very sincerely, W. BOWMAN.

2, Rutland Street, Edinburgh, October 30th, 1863.

MY DEAR MR. BOWMAN.—As you wish the members of our profession to be acquainted with the sentiments which we entertain upon this subject, I have transmitted both your letters and my own to the Editor of the *BRITISH MEDICAL JOURNAL*; and now bid adieu to iridectomy, in the hope that, whatever may be its value for the cure of blindness, it will never interfere with the respect and regard which I entertain for yourself.

Yours very truly, JAMES SYME.

IN the despatch of Admiral Kuper, describing the late naval operations in Japan, praise is bestowed on all branches of the service except the medical. This is all the Admiral has to say under this head.

"Their lordships will observe the testimony borne by Mr. Morgan, surgeon, to the able assistance rendered him by Mr. Charles R. Godfrey, assistant-surgeon to the *Vulcan*, who at the time of the engagement was on board this ship, waiting a passage to Shanghai."

The following is the part of the report of Mr. Morgan referred to.

"I would beg to bring to the notice of the Commander-in-chief the able assistance rendered me by Mr. Charles R. Godfrey, acting-surgeon of Her Majesty's ship *Vulcan*, who was awaiting passage to that vessel, trusting the Commander-in-chief will be pleased to bring the same before the favourable notice of the Lords Commissioners of the Admiralty. Mr. Edward A. Birch, acting-assistant surgeon, I would beg also to mention, who was uniting in his attention to the wounded."

New medical journals spring up weekly in Italy. The last one announced bears the title, *The Italian Archives of Nervous Diseases and of Lunacy*.

The venerable Professor Maggiorani, who has been expelled from Rome, under suspicion of being guilty of desiring an united Italy, has been inducted into the clinical chair at Palermo.

THE LATE ALLAN WEBB, M.D.

THE medical profession and the Bengal Medical Department have sustained a great loss in the premature decease of this gentleman. The distinguished author of the *Pathologia Indica*, after an arduous professional career of above thirty years, of which twenty-seven had been devoted to the Indian medical service, succumbed on September 15th, at the comparatively early age of 55 years, to disease brought on by the arduous nature of his duties. He was a pupil of the late Mr. Haden of Derby; then of Mr. Jennings of Leamington; afterwards, of the late Mr. Thomas Alcock, lecturer on surgery, in London, whom he assisted by drawing, dissecting, and modelling; and, at this period, he obtained from the Society of Arts the large silver medal for anatomical drawing. Subsequently, he was clinical assistant at the Westminster Hospital. His remarkable qualifications as a surgical anatomist and an artist attracted the notice of the late Sir Robert Peel, no mean judge of merit; and it was through his influence, we believe, that Dr. Webb obtained an Indian medical appointment.

After his arrival in Bengal, he did not remain long on general duty; for his superior attainments induced Government to appoint him surgeon to the Bishop of Calcutta, and in his company he traversed most parts of our Indian empire. During these years, his opportunities for observing the varieties of tropical disease were almost unlimited; and so well did he use them, that the views on their pathology and treatment which he embodied in his principal work, the *Pathologia Indica*, have had a marked effect in modifying the views and influencing the practice of our medical brethren in the East. Ever on the look out to render professional aid where it was most wanted, he worked energetically in support of a hospital at Simla, to which he devoted all the time he could spare. Government employed him to report upon an outbreak of cholera which had destroyed large numbers of native convicts upon portions of the Grand Trunk Road, then being constructed. His recommendations were acted upon; and a stop was put to the outbreak. Eventually, he was appointed Professor of Military Surgery in the Calcutta Medical College; and, in course of time, Clinical Professor of Surgery at the College Hospital, and surgeon to the Native Hospital. Fortunate it was for the present race of native practitioners, as well as for Indian medical science, that his great attainments as an anatomist and scientific surgeon, combined, as they were, with his abilities as an artist, were thus made available; and that he was enabled to become one of the most successful operating surgeons of the day. He first carried out systematic courses of surgical anatomy in the College; and from his immense surgical experience, he was enabled to lay down rules for operating, more precise than had before been attempted. These he afterwards embodied in his *Field Notes for Surgical Operations*. He was also curator of the College museum; and for some years laboured with indefatigable industry to collect specimens of all the forms of disease most prevalent in India, and thereby was enabled to lay the foundation of a rational

system of pathology and treatment. In accordance with his system of applying the humoral pathology to many Indian diseases, he looked upon cholera as an exhausting disease, in which there was an excessive elimination of disintegrated blood; and advocated the use of opium and stimulants, in opposition to the plan of treating it by depletion, salines, etc. In abscess of the liver, he advocated a modification of the plans adopted by Graves, Alcock, and others, of promoting adhesions between the hepatic lining and the abdominal parietes, with the view of facilitating the outward evacuation of matter and preventing introduction of air into the cavity.

Great as were his labours as an Indian physician, probably those which he undertook in the character of surgeon were of more importance. We believe that no European surgeon had ever more experience in operating upon cases of elephantiasis of the scrotum. He instituted researches into the nature of these tumours; and the results were embodied in a paper which was read by him and discussed, not long ago, before the Royal Medical and Chirurgical Society of London.

In the midst of his toils, he could always spare time to do a beneficent act; to aid a professional brother in his researches; or to investigate the causes of phenomena himself with the scalpel or microscope. Few men were more esteemed by their patients than Dr. Webb; he was always looked upon as the personal friend as well as the medical attendant. For very many years, he was the medical adviser and chosen friend of the Bishop (Daniel Wilson). His name is now to be added to the list of those who, having served their country long and well in the East, have only returned to commence their long rest in their native land.

Association Intelligence.

ROYAL COLLEGE OF SURGEONS: ELECTION OF MEMBERS OF COUNCIL.

THE following memorial has been forwarded to the President and Council of the Royal College of Surgeons of England, in consequence of a recommendation made by the Council of the British Medical Association at the meeting in Bristol.

To the President, Vice-Presidents, and Members of Council of the Royal College of Surgeons of England.

The memorial of the President and members of the British Medical Association,

SHEWETH,—

That the British Medical Association numbers more than two thousand medical practitioners in the metropolis and the provinces, including many Fellows and Members of the Royal College of Surgeons.

That the mode of election of the Members of Council of the College of Surgeons has been brought under the notice of your memorialists.

That your memorialists understand it to have been the intention of the charters granted to the College, that the opportunity of voting in the election of Members of the Council of the College should be afforded equally to all its Fellows.

That, under the present bye-laws of the College, personal attendance on the day of election is required; whereby many Fellows residing in the country, and prevented by their professional duties from going to Lon-

don, are prevented from recording their votes, although desirous and justly entitled to do so.

That, in the Universities of Oxford and Cambridge, the voting at the election of members of Parliament is conducted by means of voting-papers, filled up by the non-resident electors and sent by post; proper provision being made for their authenticity.

That your memorialists are of opinion that the adoption of some such method would remove the dissatisfaction at present felt by the profession as to the mode of election of Councillors of the Royal College of Surgeons, and would entitle the result of the election to be considered a more correct expression of the wishes of the Fellows than it now is.

Your memorialists therefore earnestly request that you will be pleased to take into consideration the propriety of altering the bye-laws of the Royal College of Surgeons of England in regard to the election of Members of Council, or, if necessary, of obtaining the legal powers for doing so, so that non-resident Fellows of the College may be enabled to vote by proxy at the annual election of Members of Council, in accordance with the principle which has already been advantageously adopted in the Universities of Oxford and Cambridge.

(Signed)

J. A. SYMONDS, M.D., etc., *President.*

T. WATKIN WILLIAMS, M.R.C.S.Eng., *Gen. Sec.*

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
BIRMINGHAM AND MIDLAND COUNTIES. [Ordinary.]	Medical Department of Birmingham Library.	Thursday, November 12th, 1863.

EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting will be held at the Fountain Hotel, Canterbury, on Thursday, November 26th, at 3 P.M.

Dinner will be ordered for 5 o'clock.

THOMAS BOYCOTT, M.D., *Hon. Secretary.*

Canterbury, November 2nd, 1863.

SHROPSHIRE SCIENTIFIC BRANCH.

"Felicitas infelicibus adjuvante scientia."

THE members of this Branch held one of their periodical evening meetings at the Raven Hotel, on September 22nd last; ROBERT BLAIKIE, Esq., President, in the Chair.

Communications. 1. A Paper, illustrated by Diagrams and Experiments, on the Cause of the Deformities of the Skulls found in Excavating at the Ancient Roman City of Uriconium (Wroxeter). By H. Johnson, M.D.

2. A Paper on some Cases of Poisoning by the Administration of "Bear's Foot" (*Helleborus Fatidus*) as a Vermicide to Children. By T. B. Barrett, Esq. It appeared probable that the *Helleborus Niger* had been the plant used.

3. Some Mineral Waters, strongly impregnated with Salts, from Natural Springs near to Llanrwst, were exhibited by R. Blaikie, Esq.

4. A number of New Preparations were exhibited.

5. A present of the Patent Oxygenated Water, prepared by the Patented Oxygenated Water Company, was received and tasted. A report was suggested to be made of its value as a remedial agent, after trial.

6. Mr. Barrett showed a number of beautiful and interesting Photographs.

7. Microscopes and Preparations were on the tables; and amongst other interesting things exhibited was a case of Roman Surgical Instruments, Charms, and Relics, relating to the profession, and discovered at Uriconium (Wroxeter), which had been used by our professional forefathers more than 1800 years ago.

Business. T. B. Barrett, Esq., of Welshpool, was unanimously elected Vice-President for the ensuing year, and three new members were added to this Branch.

The members then partook of coffee, and the meeting closed.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE ordinary meeting of the Bath and Bristol Branch was held at the York House, Bath, on Thursday, October 22nd; F. K. Fox, M.D., President, in the chair. There were also present thirty-seven members and six visitors.

Cases. The following cases were read:—

1. Spasmodic Affections of Children: 1. Pertussis. By E. L. Fox, M.D.

2. The Nature and Treatment of Non-Syphilitic Psoriasis. By J. K. Spender, Esq.

3. Case of Congenital Deformity of Foot. By A. Prichard, Esq.

4. Dr. Falconer exhibited a patient with well marked Wasting Palsy of the Upper Extremities.

Correspondence.

FEVERS AND THEIR CAUSES.

SIR,—An accurate knowledge of the laws of epidemic disease, so long needed, now appears to be one of the advances in medicine most nearly "looming in the distance". To exclude all erroneously supposed modes of causation, is the first step towards ascertaining the true cause. Dr. Christison has done good service in publicly expressing his conviction that foul air and sewage emanations cannot of themselves generate typhus or typhoid fever. The occasion seized by Dr. Christison, and the authority of the speaker, will do more to direct general attention to this question than could have resulted from cursory papers in the medical journals, however reiterated. And as a certain amount of impulse is necessary for sanitary action, as for every other action on a large scale, one may perhaps rejoice that the anti-foul-air movement has so long been looked upon as a vital point in the eradication of fevers, before the reaction of opinion touching its share in causing fevers becomes general. Antisanitary sluggishness stands in need of no support from a feeling that bad drainage does not do *quite* all the evil with which it has been credited. Granting that a bad drain cannot become a fever-poison factory, so long as the specific poison of fever cannot gain admission into it; yet facts innumerable prove that a bad drain may become a fever-poison receptacle, carrier, and general distributor. And, although a nauseous drain-smell may not be competent to induce disease, yet the gaseous drain emanations, whose presence the bad smells indicate, may convey volatile germs of disease, whether diphtheria, cholera, dysentery, or continued fever. Such volatile germs may be in the air without any odour; or they may be in the air which causes a bad smell. The only connection of the smell with them seems to be, that it itself proceeds from, and points out, a source from which these germs may proceed, and one, too, which is avoidable or removeable. Some facts connected with cholera leave it rather doubtful whether the unknown cholera-poison (or ferment) may not breed and increase itself in putrescent matter; or, if not that, may not, at all events collect by preference, and so accumulate there as to make the place a virulent focus of the disease.

How far this may be true of fever-poison, is neither

proved nor disproved at present; but in any case, extensive drains belong to large towns, and large towns are now never quite free from typhoid fever; and if the alvine dejections of typhoid patients really be the most direct of the several possible means of conveying and communicating contagion, the question of the share of sewers in spreading typhoid fever must be very important, when the other unknown conditions which favour an epidemic concur. Facts during the invasions of cholera, during the fever at Croydon and at Windsor, and elsewhere, crowd upon one's memory in illustration of this. Indeed, it is impossible to assert that the sewers of a large town are ever free from specific fever-poison directly imported into them. It is, therefore, impossible to aver that a given sniff of sewer air may not happen to contain an adequate dose of fever-poison at any time, although, in ordinary times, too diluted to do harm. Nothing in medicine is more established than that bad drainage is in every way a bad thing, and to be opposed and rectified in every way possible. And nothing is better supported by facts (apparently), than that, *during the prevalence of a fever epidemic*—when we may suppose that the quantity of fever-poison is too large to be rendered innocuous—bad drainage is a most prolific means of circulating and communicating the fever-poison. Whatever, therefore, science may decide as to the causation of fever, sanitarians need not imagine that the importance of their labours, even were the question limited to the instance of fever, will be lessened, or less appreciated. Look at the reduced death-rate at Salisbury, for example, as referred to in the same number of the *Times* as that containing a reference to the Social Science meeting.

Still, if we are to advance, we must make our knowledge precise; and this can only be done by cutting off all false causes one by one. Now, should it prove that typhus and typhoid fevers cannot be spontaneously generated, in any case, more than a lichen or a maggot can; that in every case it can only be "like which produces like" in these diseases; then, I think, there is one man to whose labours this first fruit of the inquiry will be preeminently due, and to whom the credit which attaches to him who *works out his problem* will always be given by those who accept his conclusions. I need not say that I mean Dr. William Budd, whose aim for the last twenty years has been to prove, by the particular facts of every epidemic as it occurred, this very conclusion. I venture to congratulate Dr. William Budd on the circumstance, so pleasing to himself, that the views he has so long espoused, and from time to time brought before the notice of the profession, have been endorsed on independent testimony by a professor of his own Alma Mater so esteemed as Professor Christison.

I am, etc., M.D.

Torquay, October 28, 1863.

[It must be highly gratifying to Dr. Budd to find the views concerning the origin of enteric fever, which he has so long maintained, and upon which he has bestowed so much and such careful investigation, sanctioned by so great an authority as Dr. Christison. EDITOR.]

THE AIR-PESSARY IN PLACENTA PRÆVIA.

LETTER FROM WILLIAM SANKEY, ESQ.

SIR,—Having very recently had a case of placenta prævia, in which, at the suggestion of my partner, Mr. Barton, I employed the air-pessary as a plug (as recommended by Mr. J. J. Murray), I lose no time in calling the attention of my professional brethren to this most valuable instrument; feeling convinced that by its adoption in the present instance, I owe the successful result; viz., safety of mother and child—a very unusual occurrence in placenta prævia complicating a first labour.

I am, etc., WM. SANKEY.

Dover, Nov. 3rd, 1863.

THE PAY OF GRATUITOUS LABOUR.

SIR,—The petition, of which a copy is sent herewith, has been transmitted to the Privy Council. The object of the petition is to show one at least of the departments of the Government that medical men ought not to be called upon to give their attendance without pay. No public office treats lawyers thus.

I inclose also a copy of the reply from the Privy Council. Of course this is what one expected. I wonder how much work Mr. Simon considers his medical brethren should perform for nothing. How much extra work does he himself do gratuitously, because it is incidental to his appointment? His allusion to our want of public spirit is simply absurd.

I am, etc., AN UNION SURGEON.

1. Petition.

The petition of certain public vaccinators in the — Union to the Right Honourable the Lords of Her Majesty's Privy Council,

SHewETH,—

That the undersigned, being vaccinators appointed by the Board of Guardians, were summoned "to attend on an inquiry on the subject of vaccination", held on the 16th inst. by Dr. Stevens, who had been appointed by your lordships.

That the undersigned did so attend the inquiry, at great inconvenience and loss of time, all except one living from seven to nine miles from the place where the inquiry was held.

Your petitioners therefore pray your lordships to grant them such compensation as you may think fit for the loss of time they incurred in attending the inquiry of your lordships' appointee, more especially as their attendance was voluntary, and the inquiry not one that was beneficial to them.

(Signed)—H. S.; N. R.; J. B.; C. A. M.; C. J. R.

October 20th, 1863.

2. The Reply from the Privy Council.

Medical Department of the Council Office, Oct. 30th, 1863.

SIR,—I am directed by the Lords of Her Majesty's Council to acknowledge the receipt of a petition signed by you with other public vaccinators of the — Union, stating that you recently attended an inquiry, held under their lordships' direction, into the state of vaccination in the — Union; and praying that their lordships will grant you such compensation as they may think fit for the loss of time incurred by you in this attendance.

My lords direct me to say, that they have not at their disposal any funds out of which they can make any such payment as you desire; and as it was incidentally to your filling the paid office of public vaccinators, that you were invited to confer with their lordships' inspector as to the state of vaccination in your Union, their lordships hope that you will not regret to have rendered this unpaid service in furtherance of an important public object for which you are officially engaged.

I am, sir, your obedient servant,

JOHN SIMON.

[This is only another example of the results of the general practice adopted by the profession of doing work gratuitously. If there is one thing more certain than another, it is this: that whoever does the work of the public gratuitously is lowered in public estimation, and receives snubs instead of pay for his labours. EDITOR.]

WAR-MORTALITY. The general mortality rate of the armies of the United States during the first year of the rebellion was 67·6 per thousand of mean strength, including with deaths from disease those from wounds and injuries. The mortality from disease alone was 50·4 per thousand, that from wounds and injuries of every kind 17·2 per thousand.

Medical News.

APOTHECARIES' HALL. On October 29th, the following Licentiates were admitted:—

Gervis, Frederick Hendebourck, Tiverton
Leach, Matthew, Wisbech, Cambridgeshire

At the same Court, the following passed the first examination:—

Henderson, Roderick William, Guy's Hospital
Iles, Daniel, St. Thomas's Hospital
Milburn, Frederick Le Fève —, Charing Cross, Hospital
Reed, Walter Hugo, St. Thomas's Hospital
Wells, James, Bristol Medical School

APPOINTMENTS.

BLASSON, Thomas, Esq., has been appointed Medical Officer to the House of Correction at Falmouth, Lincolnshire.

COOKE, Robert T. E. B., L.R.C.P.E., elected Consulting Medical Officer to the Royal Sea-Bathing Infirmary, Scarborough.

HORRAN, William C., M.D., has been elected Coroner for the Borough of Drogheda.

KING, Charles C., M.D., has been appointed Medical Inspector under the Poor-Law Commission, Ireland.

*ROWE, Thomas Smith, M.D., has been elected Surgeon to the Royal Sea-Bathing Infirmary, Margate, in the room of *G. H. Hoffman, Esq., resigned.

TAYLOR, William, Esq., elected Consulting Medical Officer to the Royal Sea-Bathing Infirmary, Scarborough.

TYNDALL, George H., Esq., has been appointed Surgeon to the Peninsular and Oriental Steam Navigation Company's steamer *Ceylon*.

POOR-LAW MEDICAL SERVICE.

BOURNES, William H., M.D., to the Ballycastle Dispensary District of the Killalea Union, Co. Mayo.

BRADLEY, John D., M.D., to the Kilbeggan Dispensary District of the Tullamore Union, King's County.

LAND, John F., Esq., to part of the West District of the Patrington Union, Yorkshire.

LUMLEY, Bartholomew, Esq., to the Osmotherley District of the Northallerton Union.

MACMANS, Thomas A., Esq., to the Middle District of the Patrington Union, Yorkshire.

MAY, Henry, Esq., to the Ashted District of the Aston Union, Warwickshire.

SHEPARD, Henry C., Esq., to the Raglan District of the Monmouth Union.

WIGO, Thomas C., Esq., to the Southminster District of the Maldon Union, Essex.

INDIAN ARMY.

MACPHERSON, Surgeon H. M., Bengal Army, to be Surgeon-Major.

ROYAL NAVY.

FISHER, John, Esq., Surgeon, to the *Royalist*.

GEORGES, Thomas E., Esq., Assistant-Surgeon, to the *Tamar*.

LONG, James, M.D., Surgeon, to the *Tamar*.

WAY, John P., Esq., Acting Assistant-Surgeon, to the *Royalist*.

DEATHS.

BAIN. On October 12th, at Suez, Elizabeth Piper, wife of James Bain, M.D., 6th Bombay Native Infantry.

BARKER. On October 31st, at Dorchester, aged 26, Mary Esther, wife of Joseph Barker, Esq., Assistant-Surgeon Royal Horse Artillery.

BISHOPP. On October 26th, at Thornby Hall, Northamptonshire, aged 88, Mary J. W., widow of Thomas Bishopp, M.D.

BLAND. On October 31st, aged 86, Emma, widow of Thomas Bland, M.D., of Melton Woodbridge, Suffolk.

DIGHTON, Christopher, Esq., Surgeon, at Northallerton, aged 74, on November 2.

JONES. On November 2nd, at Sydenham, Isabel Eveline, infant daughter of *Sydney Jones, M.B., of St. Thomas's Street.

WARREN, Henry, Esq., Surgeon, late of Oswestry, at Park Road, Regent's Park, aged 44, on November 2.

COLLODION AND GLYCERINE. Two parts of glycerine, mixed with one hundred parts of collodion, form an application which, when spread on the skin, will not crack.

EXPENSES OF POOR-LAW GUARDIANS. Last week, the Poor-law Guardians of Bethnal Green successfully sued a person, whose son had been sent into the Small-Pox Hospital by them, for the admission-fee of one guinea paid by them and costs.

LEGACY. A Birmingham paper states that the magnificent legacy of £10,000 has just been bequeathed to the General Hospital in that town by the late Mr. Daniel Darbey, who died a few days ago at Rowley. By the law at present in operation respecting legacies, half this sum will have to be invested; but the remaining half will clear the hospital of its present debt, and the invested half will add some £200 to its regular income.

MEDICAL ETHICS. The following resolutions have been carried at annual meetings of the Herefordshire Medical Association:—"That this meeting disapproves of the system of giving certificates in favour of any particular line of practice, medicine, or article of diet, as derogatory to the profession; and hopes that in future the members of this Association will abstain from lending themselves to such a course. That this Association strongly disapproves of medical men publishing scales of charges, or otherwise advertising for practice, the more particularly so when done for private motives under the guise of charity."

EDINBURGH UNIVERSITY. The winter session of the University of Edinburgh was publicly opened in the Music Hall, on Monday, with an inaugural address by Principal Sir David Brewster. The learned Principal was accompanied on the platform by their Royal Highnesses Prince Alfred and Prince William of Hesse, the members of the *Senatus Academicus*, and the University Court. Their Royal Highnesses, who received a most enthusiastic welcome from the audience, occupied seats at the right hand of Sir David Brewster during the delivery of the address. Among those on the platform were Lord Llanover, Lord Elcho, Major Cowell, and Capt. Zangen.

ALDERSHOT HOSPITAL FOR SOLDIERS' WIVES. The third annual report of the committee of the Aldershot Hospital for the wives and children of soldiers has just been issued. The hospital was established in September 1861, and has afforded relief to some thousands of persons. During the past twelve months 809 cases have been treated in the hospital—namely, confinements, 331; sick women, 232; sick children, 246. Out of that number there have been only 23 deaths—women 7, and children 16. The report, which is signed and "approved" by Lieut.-General Sir J. L. Pennefather, K.C.B., contains the expression of the committee's thanks to Mr. D. P. Barry, secretary and medical attendant, and to Major Smith, treasurer, to whose persevering exertions the very satisfactory state of the hospital is, in a great measure to be attributed.

A FIGHT WITH A MONKEY. A Bordeaux journal states that a medical student of that town last week narrowly escaped being strangled by a female baboon which he had received as a present from a friend. It appears that the animal, which was of large size and savage, had always been kept chained up, but its new master set it loose in his room. The monkey leaped on its master's shoulders and attempted to strangle him by claspings him round the neck. The young man vainly endeavoured to shake the animal off, and even stabbed it several times with a bistouri, but this only rendered it more furious. It is impossible to say how the struggle might have ended, if a brother student had not opportunely entered the room and despatched the monkey with an amputating knife. The student was severely bitten and torn about the neck and breast, but his wounds are not likely to be followed by any serious consequences.

UNIVERSITY OF EDINBURGH. The annual meeting of the Edinburgh University Council took place on October 30th; and a rather breezy kind of meeting it was, as, indeed, what else could it be among several hundred old students, who grow young again at the sight of each other, and ready for mischief? They have, however, done one good thing; and that is, elected Mr. Muir, D.C.L., the founder of the new chair of Sanscrit, as

their representative in the University Court. This gentleman, besides being an eminent Sanscrit scholar—he was once of the Indian Civil Service—is a most accomplished man, and so rational in matters of religion as to be a regular hearer of Dr. Robert Lee. The University Council did another thing, which was questionable; they refused to pass a vote of thanks to Lord Barcaple, the retiring assessor, chiefly because he had supported the exclusion of reporters from the University Court.

UNIVERSITY COLLEGE, LONDON. The surviving founders of University College will remember the hearty co-operation which they met with in their project to create the University of London from several opulent merchants of India, and notably from Sir Jamsetjee Jejeebhoy, and others, of Bombay, for shares in the institution. It will now gratify them to find that for several years past the College has had a constant succession of students from the Presidencies, mostly Parsees. Of the estimation in which intelligent and distinguished Indians hold these advantages substantial proof has just been afforded by the munificent gift of £1000 for the hospital, and by the terms of a letter addressed to Dr. Walshe from the eminent firm of Cama and Co.:—"London, Oct. 20. Dear Sir,—Referring to the conversation we had with you, we now beg to enclose a cheque for £1000, as a donation to the University College Hospital, in gratitude for the instructions and assistance received by our countrymen in this excellent institution, and we feel it a pleasure to give this amount through you, in token of friendship, and successful studies of our countrymen under your former professorship. We remain, dear Sir, yours faithfully, CAMA and Co."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY. Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY..... Westminster Ophthalmic, 1.30 P.M.
SATURDAY.... St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Mr. Wm. Adams, "On the Treatment of Disease of the Spine, and Angular Curvature."—Royal Geographical.
TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Rowand, "On Treatment of Frost-bite by Friction with Snow and Incision"; Mr. Holmes Coote, "Cancerous Infiltration of the Penis"; Mr. A. Durham, "Mucous Cyst of the Epiglottis, treated by Incision."—Zoological.
WEDNESDAY. North London.—Microscopical.
FRIDAY. Astronomical.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—OCTOBER 31, 1863.

[From the Registrar-General's Report.]

	Boys .. 962	Deaths.
	Girls .. 873	1835 1252
During week.....		
Average of corresponding weeks 1855-62		1882 1224
Barometer:		
Highest (Mon.) 29.878; lowest (Fri.) 21.109; mean, 29.521.		
Thermometer:		
Highest in sun—extremes (Sun. & Mon.) 84 degs.; (Fri.) 55 degs.		
In shade—highest (Wed.) 56.2 degs.; lowest (Tu.) 34.7 degs.		
Mean—45.7 degrees; difference from mean of 43 yrs.—1.3 deg.		
Range—during week, 21.5 degrees; mean daily, 14.8 degrees.		
Mean humidity of air (saturation = 100), 88.		
Mean direction of wind, S.W.—Rain in inches, 0.47.		

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

THE MEDICAL SCHOOLS.—In our last number, we announced the fact, that Guy's Hospital could boast of more than two hundred students in attendance this year; and that no other hospital had so many. We have since learnt that St. Bartholomew's Hospital has one hundred and ninety-six registered students in attendance this year; and that with other occasional students perfecting themselves in different branches of professional knowledge, the whole number of students at that great medical school also exceeds two hundred.

THE SPECULUM.—SIR: Having repeatedly, in reading your valuable periodical, seen observations regarding the use of the speculum, tending to bring it into discredit and disuse, I would wish simply to state that the insinuations against its use are so derogatory to the honour of the profession and the dignity of science, that they ought really only to be treated as utterly unworthy of note or comment. Insinuations of this kind can only tend to lower the character of its members, excite the suspicion and disgust of the public, and bring into disuse the application of this almost invaluable instrument. I think no unprejudiced mind can but allow that, since its introduction into practice in demonstrating the existence and character of very obscure and otherwise utterly unattainable phases of disease, it has undoubtedly indicated the successful application of remedies; in many cases affording immediate and permanent relief, and in others performing an absolute cure, restoring back to society and to happiness many valuable lives, otherwise rendered miserable to themselves by pain and suffering, and lost to their families, by their necessary withdrawal from social intercourse. I can truly say, that in my own practice I have found the speculum an almost invaluable adjunct in relieving an immense amount of human suffering, entirely unattainable by any other agency. I am, etc.,
Enfield, October 27th, 1863. GEORGE KITCHING, M.D.

[No one doubts the use of the speculum; and we are sure our correspondent will not deny that the instrument has been abused, and that no instrument is more capable of being readily abused. If so, clearly its proper application requires the attention of the profession. EDITOR.]

CHLOROFORM.—SIR: As the problem of why we have deaths from chloroform has been at length worked out, I wish you would let me say, that in a French *annuaire* (equivalent to our "Braithwaite"), just published, there appears a most important case of chloroform accident in France, in which life was restored by the "Faradisation" plan, as recommended so strongly by me, as founded on numerous experiments on animals, and in one remarkable case in a female patient in a London hospital.

As I am made the depository in some measure of these cases, perhaps I may say, I heard of two deaths from chloroform last week; two the week before, in London alone; and six in the summer, all not published. I am, etc.,
Sackville Street, Oct. 25th, 1863. CHARLES KIDD, M.D.

COMMUNICATIONS have been received from:—Dr. THOMAS BOYCOTT; Mr. ASHBY G. OSBORN; Mr. W. H. GATTY; Mr. J. KENT SPENDER; Mr. F. J. BROWN; Mr. R. S. FOWLER; Mr. J. C. WORDSWORTH; Mr. J. AS. SYME; Mr. SOPER; Mr. S. WOOD; Mr. WILLIAM BOWMAN; Dr. T. J. WALKER; Dr. T. S. ROWE; Mr. T. JONES; Dr. H. MUNROE; Mr. W. SANKEY; Mr. HUGH ROBINSON; Mr. J. VOSE SOLOMON; Mr. G. F. HELM; Dr. CANDY; Dr. THOMAS SKINNER; Dr. J. E. CROOK; Mr. G. H. HOFFMAN; THE HON. SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; AN UNION SURGEON; Mr. W. MARSDEN; Dr. A. SAMELSON; THE REGISTRAR OF THE MEDICAL SOCIETY OF LONDON; and Mr. C. F. HODSON.

BOOKS RECEIVED.

1. Notices of Pulmonary Lesions associated with Syphilis. By W. Aitken, M.D. London: 1863.
2. Report of the Royal Lunatic Asylum, Infirmary, and Dispensary, of Montrose, for 1863. With an Appendix. Montrose: 1863.
3. Urine, Urinary Deposits, and Calculi. By Lionel S. Beale, M.B., F.R.S. Second edition. London: 1863.
4. On Glycerine, and its Uses in Medicine, Surgery, and Pharmacy. By W. A. Smith, M.D. London: 1863.
5. On the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases. By John Hilton, F.R.S. London: 1863.
6. Introduction to Anthropology. By Dr. Waitz. Edited by J. F. Collingwood. London: 1863.

Lectures

ON

ORTHOPÆDIC SURGERY.

BY
BERNARD E. BRODHURST, F.R.C.S.,
OF ST. GEORGE'S HOSPITAL, AND THE ROYAL
ORTHOPÆDIC HOSPITAL, ETC.

LECTURE II.

ON CURVATURES OF THE SPINE. (Continued.)

Pathological Spinal Curves.

THE antero-posterior pathological curves are, for the most part, merely exaggerated conditions of the physiological curves; thus we find lordosis to exist especially in the lumbar region, and cyphosis in the dorsal region. It will be shown further on, however, that these conditions are not absolutely limited to a given region; but that the vertebræ above and below may be involved in the curve, so as to reverse the normal curve of any region. These curves are rarely congenital; but they are induced through ignorance or neglect on the part of the nurse, or otherwise through deficient nutrition.

Lordosis.

Lordosis, or anterior curvature of the spine, affects for the most part the lumbar region, it being an abnormal increase of the physiological curve of that region.

In the cervical region, a similar abnormality is occasionally found to exist as a primary condition; here it is transitory, however, occurring in infants, and being due to want of muscular power.

In the lumbar region, this distortion varies from a slight increase of the normal curve of that region to a development which is a source of great weakness. The normal condition has already been shown. Through increase of this curve, the obliquity of the pelvis is augmented; the anterior wall being carried backwards, and the sacrum and coccyx being raised, so that their concavities present more directly downwards; the superior portion of the pelvis inclining forwards or moving on the heads of the thigh-bones. The sacro-lumbar articulation, consequently, is no longer found immediately above the interfemoral line, but in advance of that line. Equilibrium is disturbed; and that it may be restored, it is necessary that the weight of the upper part of the trunk be thrown behind the vertical line of the body; and thus a compensatory antero-posterior dorsal curve is induced.

The external appearances presented by this distortion, then, are such as are indicated by the changes in the skeleton above mentioned. The nates are raised; the lumbar region is rendered remarkably hollow; while the dorsal is rounded, and the head is thrown back. The abdomen is unusually prominent. The stature is necessarily stunted: when the distortion occurs in childhood, the growth

is impeded; and when it takes place in the adult, much loss of height is incurred.



Fig. 4.

The drawing from which the woodcut was made, was taken from a young person in whom rickets was the cause of distortion.

The causes of lordosis are numerous. As a congenital affection, it is combined with monstrosity and with spina bifida. It is seen in childhood as a result of rickets. And whatever tends to increase the obliquity of the pelvis, will give rise to this form of distortion. Thus, it is a necessary consequence of congenital dislocation of the heads of the thigh-bones (upwards and outwards). In some instances arising from this cause, the distortion is very remarkable. A child is at the present time under my care for congenital dislocation of the thigh-bones, in whom lordosis was very marked; so much so, indeed, was it, that the congenital dislocation was entirely overlooked and never suspected, while the child was treated during three years for lordosis—a consequence merely of congenital dislocation. It is unnecessary to speak of results when treatment so abortive is followed. Unfortunately, it is too common in orthopædic surgery.

Lordosis may be induced equally by unreduced non-congenital dislocation of the thigh-bones. Thus, it exists in a very marked degree in a young man, 20 years of age, who has suffered successively in each hip-joint from rheumatic inflammation and subsequent dislocation on to the dorsum ilii; and in whom it was impossible, notwithstanding every care, to arrest the disease. In these cases, as in those last mentioned, a great effort is made to sustain equilibrium; the extensor muscles of the trunk are tense and prominent, and standing out firmly, they

leave, especially towards the lower part of the spine, a sulcus in the median line.

I lately saw, together with Mr. Brookes, a similar form of distortion arising from a totally different cause, at Shaldon in Devonshire; and I allude to the case, not because it is one commonly to be met with, but because it is exceedingly rare. Fatty degeneration of the muscles of the abdomen having occurred, the abdominal viscera hung suspended in a huge, tumid paunch; the weight of which had, in part, occasioned the distortion in question. This distortion was one of the most remarkable that I ever witnessed. The effect was increased, also, by fatty degeneration of many other muscles, such as the trapezii, rhomboidei, serrati, latissimus dorsi, the pectoral muscles, and those of the lower extremities. Many of these muscles were so far destroyed that they could not even be traced. In this instance, the unsupported pendulous belly, together with the loss of muscular power, seemed to give rise to lordosis, in a somewhat similar manner to that in which the gravid uterus is sometimes known to act.

Bearing heavy weights round the neck and shoulders will also occasion lordosis. That a considerable burden may thus be slung, borne upon the neck and shoulders and suspended in front, it is necessary that the shoulders shall be thrown back, and that, consequently, the loins shall be projected forwards. And this practice being continued, the increased lumbar curve becomes more or less permanent. I have known gymnastic exercises produce a somewhat similar result.

The *pathological changes* which are induced are chiefly as follow. The lumbar spines are approximated; the articulating processes of the vertebræ are pressed forcibly into contact one with another; the posterior ligaments become somewhat shortened, and the ligamenta subflava lose something of their elasticity; the bodies of the vertebræ undergo absorption, and the intervertebral substances are compressed posteriorly; while expansion of these substances takes place on the anterior surface in the convexity of the curve. The extensor muscles of the trunk are strongly developed. Ankylosis of the articular processes of the vertebræ, with or without fusion of the bodies, may at last take place, through which the spine is rendered immovable and the distortion permanent.

Anterior curvature is, for the most part, limited to the lumbar region of the spine; the dorsal and sacral regions being implicated only so far that their normal curves become exaggerated. Occasionally, however, some few of the lower dorsal vertebræ may become involved, together with the lumbar curve; or, indeed, the entire dorsal curve may be reversed, and the anterior curvature will then consist of the lumbar vertebræ, together with the dorsal. This is, necessarily, a very rare form of distortion; and it indicates great weakness of the anterior ligaments of the spine. In an instance which I lately saw, the sacrum was almost horizontal, and the head was thrown forcibly back.

Treatment. From what has gone before, it is evident that lordosis is seldom a primary affection; but that it is consequent on disease or position of parts entirely independent of the lumbar region itself. It is usually developed in childhood; and at this early period, it disappears in the horizontal position, let the cause of the affection be what it may other

than rachitis. This rule is sufficient for practical purposes; there should be added to rickets, however, the other very rare forms of this affection which are due to monstrosity, and to deficiency or excess in formation of the bodies of the vertebræ. It is not necessary to say, however, that the cause remaining, the effect will return, and that, therefore, it is of the utmost importance to discover and remove the cause. This may be said of every disease; but it is especially true of every form of spinal curvature. It was to illustrate this that I alluded to the case of lordosis which had been treated for three years without the cause having been discovered. In this case, while the child remained in the horizontal posture, the spinal curves were effaced; but so soon as she stood, lordosis returned in as marked a manner as before. And notwithstanding, the cause could not be discovered; but for three years, this child was held in a painful position uselessly. It is only necessary to see congenital dislocation once to recognise it for ever after; and, therefore, it is the more surprising that I should be able to adduce such an example as the one before us, of insufficient attention to the cause of curvature. Happily, it was of less importance that an oversight should have been made in this instance than it might have been in some others. When I come to treat of lateral curvature of the spine, I shall have to draw attention to the great importance of attending to the cause of distortion, and to insist on the removal of the cause.

The treatment of lordosis is the treatment, in the horizontal position, of the several affections which give rise to it. With a properly inclined couch (having a hinge to correspond to the pelvis), the prone position may be observed. The supine position is more effectual, however, for the removal of lordosis; by gradually raising the shoulders and flexing the thighs upon the pelvis, cyphosis even may be substituted for lordosis.

Gymnastic exercises may be employed with advantage when the curve is slight; and the form of exercise which is most beneficial is that which is indicated by Andry, who said: "Si la taille fait un creux, en sorte que l'épine soit courbée en dedans, ce qui est le contraire de la bosse du dos, faites souvent courber l'enfant. Jetez-lui pour cela des cartes ou des épingles sur le plancher, il se fera un plaisir de les ramasser. La situation qu'il sera obligé de prendre pour en venir à bout, contraindra, à la longue, l'endroit creux de son épine à revenir en devant." (*L'Orthopédie.*)

The same exercise is better accomplished by means of elastic bands, the handles of which are fixed near to the floor; so that in using them the same movements must be accomplished (only with more regularity and more continuously) as in the mode indicated by Andry. Exercises, however, should be used sparingly and with great care. They are only admissible when distortion is slight: when it is severe, they should be entirely prohibited.

The recumbent position is the most powerful means we possess for the removal of lordosis; the muscles of the back are then relaxed; the normal spinal curves are then in part effaced, and cyphosis even may be induced if this position be long continued. Cases, however, occur in which it is not practicable to observe constantly the recumbent position, and then it is necessary to substitute a portable instru-

ment, which, receiving the weight of the head and shoulders, transmits it to the pelvis. The spinal column is thus relieved, and the extensor muscles are less violently thrown into action.

Original Communications.

THE LARYNGOSCOPE AND ITS CLINICAL APPLICATION.

By THOMAS JAMES WALKER, M.D. (Lond.), etc., Surgeon to the Peterborough Infirmary and Dispensary.

V.—CASES ILLUSTRATING THE PRACTICAL VALUE OF THE LARYNGOSCOPE.

DOUBTLESS there will recur to the recollection of every experienced practitioner, who has now made himself acquainted with the facility with which a view of the larynx can be obtained, cases which have occurred in his own practice, in which he would gladly have availed himself of the means of diagnosis and treatment which the laryngoscope affords, had he at the time that the cases were under hand been acquainted with the instrument; and it is, therefore, not my intention to do more now than to allude very shortly to a few cases illustrating the practical value of an instrument which, in its simplest form, should be in the hands of every practitioner.

The acute affections of the larynx are accompanied by such characteristic symptoms, that their diagnosis is usually comparatively easy without the aid of the laryngoscope; and in some of these maladies in which it might be desirable, the examination would not be practicable. Thus, doubtless, in cases of croup, it would be satisfactory were we able to define exactly the limits to which the false membrane extends; but the incidental circumstances of the disease, more especially the tender age of the patients in whom it usually occurs, almost necessarily preclude the possibility of our making use of the instrument: and again, in diphtheria, where it would frequently be a matter of much importance to ascertain the extent to which the air-passages are affected, the state of the fauces gives no chance of our seeing into the larynx. In ordinary acute laryngitis, I have never at present made any use of the laryngoscope; but I believe that it would be quite applicable in any such case where we were anxious to obtain a view of the parts—as, for instance, to assist us in determining upon the propriety of resorting to the operation of tracheotomy. I do not believe that the inflammation of the pharynx, which frequently accompanies laryngitis, would cause any insurmountable intolerance of the laryngoscope, as I have used the instrument in very acute cases of pharyngitis, where the symptoms threw a suspicion on the larynx, and rendered a view of this part desirable, not only for my own satisfaction, but for that of my patients, who, in two cases, were medical men, and were only relieved from a nervous fear as to the state of the larynx, by having it thus made palpable to the sight.

Of the utility of the instrument in *œdema glottidis*, there can be no doubt; unless, indeed, those practitioners who are in the habit of examining the larynx with the finger believe that a digital is equally satisfactory with an ocular examination. The parts most seriously affected in this malady, are those situated high in the larynx, and therefore most easily seen in the laryngoscope. In the following case of a closely allied if not identical affection, the effusion affected so much the floor of the mouth, the root of the tongue, and the fauces, as to render the patient unable to open his mouth to any considerable extent; but even with this

disadvantage, the eye saw certainly as far as the finger could reach, and the aid afforded by the laryngoscope in diagnosing the state of the larynx, was most satisfactory.

CASE I. W. G., aged 34, a groom, of fairly temperate habits, and usually enjoying very good health, applied to me on February 1st, 1863. He had been quite well up to the previous day, when he began to feel pain and stiffness about the lower jaw and the fauces. When I saw him, the pain had increased; there was considerable difficulty in swallowing; the voice was changed, sounding thick, not husky; respiration was quiet. The fauces were reddened; there was fulness of the salivary glands below the jaw, and some difficulty in opening the mouth and protruding the tongue. An astringent gargle and wash for the mouth, with the application of a turpentine epithem externally, were ordered. On the evening of the same day, the pain and swelling having increased, and a feeling of suffocation having supervened, the acetum lyttæ was applied externally, and an emetic administered.

February 2nd. The feeling of choking was somewhat relieved by the remedies employed on the previous night; but this morning, the œdema about the floor of the mouth was so considerable, as to give the appearance under the tongue of a double ranula. The tongue could not be protruded; the pulse was feeble and rapid; the skin relaxed. The laryngoscope, which was used with difficulty owing to the inability of the patient to open his mouth, showed the epiglottis reddened and somewhat swollen, and the back of the aryteno-epiglottidean folds scarcely affected. An incision was made on each side of the frænum linguæ into the cellular tissue of the floor of the mouth; the use of the astringent lotion continued; and fifteen minims of tincture of sesquichloride of iron administered in a mixture every four hours. Beef-tea and milk were ordered to be given in as large quantities as possible.

Evening. The œdema of the floor of the mouth was relieved by the scarification; there was still considerable pain in swallowing, and an occasional sense of choking and suffocation.

February 3rd. The symptoms depending on œdema were improving; but at the site of the incisions on each side of the frænum linguæ was a small superficial slough. The epiglottis was still comparatively slightly affected. The use of the chalybeate mixture was continued; and a lotion made with Condy's disinfecting fluid was ordered for the mouth.

February 4th. The progress of the case from this date was, with slight fluctuations, gradually towards recovery. The small sloughs separated; and the œdema subsided. The laryngoscope was daily employed; and at no time was the œdema of the epiglottis found at all considerable. By the time that the swelling about the mouth had sufficiently subsided to enable me to get a full view of the larynx, no trace of diseased action remained there; indeed, although I give the notes of this case, in connection with what I have said as to the utility of the laryngoscope in œdema glottidis, it can hardly be called an example of that malady, although closely allied to it.

Of the use of the speculum in other acute affections of the larynx, in injuries or in the passage of foreign bodies through the larynx into the trachea, I can give no examples from my own practice. The value of the laryngoscope is, however, greatest in the diagnosis and treatment of chronic affections of the larynx; and the instances are now numerous, where a patient having been treated during many years for various supposed affections of the larynx or of the general constitution, a laryngoscopic examination has disclosed a totally unsuspected cause of the aphonia and other symptoms.

In all forms of *chronic laryngitis*, whether severe or slight, leading merely to congestion or to ulceration, the

aryngoscope can be used with advantage; and the characteristic appearances of the various affections are exemplified in the following case.

CASE II. *Chronic Inflammatory Congestion accompanying Follicular Pharyngitis.* Miss C., aged 24, had for years suffered from dryness and occasional soreness of the throat, with frequent hacking cough and occasional sense of choking. Patches of redness, with distension of the mucous follicles, were observed in the pharynx. The laryngoscope showed the vocal cords healthy; but small congested patches, with dilatation of the minute vessels, were scattered over the mucous membrane, lining the interior of the larynx and covering the epiglottis. There was no thickening of the mucous membrane, nor any of the follicular distension which existed in the pharynx. In most cases of follicular pharyngitis, accompanied by the usual symptoms, where I have examined the larynx, its appearance differs but little from what is normal in the healthy organ.

The treatment in this case consisted in the application to the interior of the larynx of a solution of nitrate of silver (a scruple to the ounce), and the symptoms have been greatly relieved.

Tubercular Inflammation, and Ulceration of the Larynx. Examples of this malady are, of course, constantly occurring; and I have under my care cases, where the benefit derived from the local and general treatment is much more marked than in the following case, which standing, however, first in my note-book, I give here.

CASE III. C. C., aged 36, a butcher, consulted me in 1861, when his case was evidently hopeless. He had for eighteen months suffered from symptoms of pulmonary phthisis, and for five months had been more or less hoarse. He was now much distressed by pain and choking when he swallowed either liquid or solid food. On examination, the epiglottis was found thickened, and the left side affected by ulceration, which had destroyed a considerable portion of its substance; the interior of the larynx was red and oedematous, and the vocal cords were thickened. The application of the solid nitrate of silver to the ulcerated margin of the epiglottis relieved the pain in swallowing, but did not, of course, prevent the rapidly fatal termination of the case.

In most cases of tubercular ulceration of the larynx, there is considerable inflammatory redness and oedema, either general over the whole larynx, or more decided at the points where the ulcers with the sharply defined edges which they usually present are situated; immediately around the ulcers there is thickening of the parts, probably from tubercular deposit, and occasionally patches of tubercle may be seen which have not yet ulcerated. Not unfrequently, the mucous membrane appears to be eroded from the vocal cords, without these being at all thickened by deposit; even where the vocal cords themselves are healthy, the oedema and deposit about other parts of the larynx prevent the free action of the arytenoid cartilages and their vocal processes, and thus partly prevent the closure of the vocal cords, and give rise to the clanging voice or complete aphonia which accompanies the malady.

Syphilitic Ulceration of Larynx and Trachea. I have not at present examined, or met with any case of very acute syphilitic inflammation, and most of the cases I have examined, have been characterised by the presence of comparatively small ulcers without much oedema or redness. I do not think it necessary to quote any cases, as the treatment I have adopted, has always been constitutional and unmodified by the laryngeal examination. In one case, that of M. S., aged 20, wife of a shoemaker, suffering from other symptoms of constitutional syphilis, I could readily see an ulcer about the size of a fourpenny piece, situated on the left side of the windpipe over the upper rings of the trachea and the cricoid cartilage.

Malignant Disease of the Pharynx and Larynx. I have examined two cases of this kind laryngoscopically; in one, there was always such an accumulation of discharge about the parts, as to prevent my being able to say what was their actual condition. In the other, notes of which I subjoin, the laryngoscope certainly aided the diagnosis.

CASE IV. Mrs. M., aged 56, wife of a farmer, consulted my father and myself, in December 1860. She had for some time previously felt a pricking sensation in the throat, which led her to imagine that she might have swallowed a pin, which had got fixed in the gullet. She had now great difficulty in swallowing, and almost every attempt to eat caused a fit of choking. There was slight fulness and tenderness over the oesophagus, about the level of the cricoid cartilage. Laryngoscopic examination, made with some difficulty, from the extreme irritability of the fauces, showed irregular ulceration of the whole of the lower part of the pharynx, thickening and ulceration of the interior of the larynx, the summits of the arytenoid cartilages being especially affected. There was not much inflammatory redness; but both the ulcers and surrounding parts were covered by a considerable amount of purulent discharge. The constant choking, which was a distressing symptom in the case, depended probably on the special affection of the mucous membrane covering the summits of the arytenoid cartilages; as, when the epiglottis is sound, ulceration in this particular situation seems the most frequent cause of that symptom.

Of course, in this case, the laryngoscope gave no aid in the treatment of the malady; and only enabled us to give with more confidence an opinion, at which, we should probably have arrived without its assistance. The hopeless view which we gave of her case to our patient, induced her to place herself in the hands of a practitioner of the homoeopathic system of quackery, who held out hopes to which the patient clung almost to the hour of her death.

Tumours of the Larynx are now known to be far from uncommon; and since the introduction of the laryngoscope, several cases have been reported, but none of these illustrates more forcibly the great utility of the instrument, than the following, which I reported at length in the *Lancet*, of November 9th, 1861, and which was, I believe, the first case in which a polypus of the larynx was removed by any form of *écraseur*, with the aid of the laryngoscope. Recently, Dr. Gibb has reported cases in which he has successfully adopted a similar operative procedure to that which I employed; and from the claims he makes for his instrument, he appears to have overlooked the account of this case which I had previously published.

CASE. R. P., aged 14, smith's workman, was first seen by me August 12th, 1861. *History.* When he was six or seven years old he was first perceived to become hoarse and rather short of breath; and for the last six years he had never been able to speak but in a whisper. About eighteen months since, he became incapable of doing any but the lightest jobs, in consequence of the distressed breathing induced by exertion. Six months ago, he was compelled to give up work altogether; and for the last three months he had been unable to move across the room or to make the slightest exertion without help. He was of a highly strumous family, and had cicatrices from old strumous ulceration about the neck. He had been frequently under medical treatment; and, apparently, all the medical men who had had him under their care had used remedies for chronic laryngitis, and had probably suspected phthisis laryngea. His countenance was anxious, pale, and bathed with perspiration; his lips livid; the pupils somewhat contracted; hands cold; respiration very laboured, all the accessory muscles being thrown into action, and each inspiration being accompanied by a loud laryngeal murmur; the least

draught of wind blowing on the face stopped the breathing, and caused the greatest distress. The pulse was very rapid and small. His whole appearance was such that, before going into the history of the case, I got my instruments ready in case of tracheotomy being at once required. A laryngoscopic examination, made without the least difficulty, revealed at once the cause of the dyspnoea. The epiglottis and upper part of the larynx were normal, with the exception of slight oedema of the aryteno-epiglottidian folds; but growing from the anterior wall of the larynx, immediately above the anterior attachment of the right vocal cord, was a polypoid growth, presenting an irregular mulberry surface, which, being of about the size of the tip of the little finger, and ten lines long, acted as a valve. At each inspiration, it was seen drawn down on to the rima glottidis, which it would completely close, were it not that the end of the growth was drawn slightly through the wide posterior part of the rima, so as to leave a small chink at the back through which air could enter. In expiration, the growth was thrown upwards, so that the exit of the air was not impeded. At the base of this, and occupying a similar position on the left side, was a small growth similar in character, and of about the size of a split-pea. The nature of the case being thus cleared up, and the friends of the patient stating that for about a week he had seemed in the same imminent danger as to-day, I decided to incur the risk of delay, and, if possible, to relieve my patient without tracheotomy. I accordingly wrote at once to Messrs. Weiss of London, a description of a pair of vulsellum-scissors, curved sufficiently to admit of their being used in the larynx, which seemed to me the most feasible instrument to remove the growth.

August 14th. The symptoms during the last ten days having been very urgent, I endeavoured to relieve them by passing a tube through the rima into the trachea. To my surprise, however, when the tube was introduced, respiration seemed impossible; and, being compelled to withdraw the tube at once to avert suffocation, I found that the end of the tumour had happened to catch in the fenestrum, and that a piece of about the size of a pea had been torn off, and, becoming fixed in the tube, had completely obstructed it. This unexpected result of the introduction of the tube not only afforded very considerable relief to the patient, but also proved the great friability of the tumour, and induced me to have an instrument made by which a wire loop might be made to encircle the growth, and, being tightened, to crush through its base. This laryngeal *écraseur* consisted simply of a strong silver tube like Gooch's double cannula, but longer, and curved at one end almost at right angles; the other extremity being furnished with two strong rings or loops; a piece of thin iron wire, such as is used for sutures, or, as I have since used it, a chain made of two such wires closely twisted together, is passed through one side of the tube and returned through the other, so as to leave a loop. One end of the wire is twisted into the eye at the end of the cannula, so as to fix it firmly, and to the other is attached a small cross-bar of wood. By pulling this end firmly, one has sufficient power to crush through and separate growths of a cellular nature, such as this proved to be.*

* I am particular in describing this instrument, as Dr. Gibb, in the number of the *Lancet* for May 9th, 1863, describes a laryngeal *écraseur* which he has had constructed by Messrs. Weiss; and although he expresses himself as not unmindful of the instruments used on the Continent, makes no allusion to the fact that I had contrived and used an instrument (made for me by Messrs. Weiss) which in principle exactly resembles, although I believe it is a less manageable instrument than his. This omission, no doubt, arose from Dr. Gibb's having overlooked or forgotten the case which I published in the *Lancet* of November 1861; and I therefore at once wrote a letter for insertion in the *Lancet*, calling attention to the fact of my having described a laryngeal *écraseur* in the pages of that journal eighteen months before Dr. Gibb described his. That this letter should have been placed among the notices to correspondents instead of with the correspondence of the *Lancet*, does not appear to me to show any anxiety on the part of the editor to allow the public

August 18th. The patient had seemed much better since the removal of the small portion of the tumour by the cannula. With the aid of the laryngoscope, I succeeded three times in catching the tumour in the *écraseur*, which I received from town this day; and each time I removed a portion of about the size of a pea, giving immediate relief to the patient, who, having for three months previously to the removal of the small portion of the tumour by the tube, been unable to walk across a room, was now, with assistance, able to walk some little way from the infirmary towards his own home.

August 19th. On calling to-day, I found my patient out walking a quarter of a mile from the house. Laryngoscopic examination showed that the larger growth was sliced off on a level with the lesser, leaving the whole of the posterior part of the rima free for respiration. I to-day failed altogether in seizing in the noose of my *écraseur* any part of the growth; the whole of the pendulous portion of the tumour being removed, and its wide base alone remaining.

August 24th. The patient was greatly improved in general health and strength, and respiring with ease.

For some time after this the treatment consisted in the internal administration of cod-liver oil, and the topical application at first of solid nitrate of silver, and afterwards of a strong solution of sulphate of copper; but the patient getting so well that he was able to work extra time—that is, from six in the morning until half past eight in the evening—I did not see much of him until he again applied to me in 1862, labouring under severe catarrh, and with some return of the laryngeal symptoms, which a laryngoscopic examination showed to depend upon a return of the growth, which was, however, this time much smaller, and was situated higher up, at the root of the epiglottis, just within reach of the finger. I again removed some portions with the *écraseur*, and the patient himself scraped some portion away with his finger; the difficulty in breathing was quite relieved, but the voice remained husky. From this time, there has been no necessity for treatment, and the patient met me the other day, and very exultingly told me that he "could halloo quite well"; certainly his breathing seems as good as can be desired, but his "halloo" would not yet, I think, be of much service at the cover side.

Nervous Affections of the Larynx constitute another class in which the laryngoscope is absolutely necessary for a correct diagnosis, and consequently for suitable treatment. The following case, of which I have but very short notes, illustrates the difficulties which may surround a diagnosis, and the power of the laryngoscope to clear them away.

CASE. E. P., aged 40, wife of a farmer, was first seen at the Dispensary in July 1861. She was stout, of a pallid complexion, and had a history leading to a suspicion of a syphilitic origin of her symptoms. She complained now of rheumatic pains, especially in the left shoulder, of sponginess and tenderness of the gums, difficulty in deglutition, and respiration. The voice was nasal, and there was laryngeal wheezing in respiration, with a clanging cough. The symptoms and the history made it probable that there was some syphilitic inflammation or ulceration of the larynx; but a laryngoscopic examination showed the entire absence of any such malady, and the dependence of the symptoms upon some affection of the nervous system causing partial paralysis. The progress of the case confirmed this opinion. On August 13th, she was no better; complained of deafness, swimming in the head, and sickness. On September 23rd, she was completely deaf; had noises in the head; her voice was very nasal. She had great pain in the head, accompanied with giddiness; the sight of the right eye was failing, but was better. Her general health was

to put in force the sentiment, *audi alteram partem*, which he affixes at the head of the division "Correspondence" in that journal.

improving. The treatment at this time consisted in the internal administration of iodide of potassium, and counterirritation to the temples and the head. Slow improvement took place; and as her residence was at a considerable distance from the Dispensary, she took her discharge, partially relieved, on March 29th, 1862.

In the form of nervous aphonia, commonly termed hysterical, in like manner we might frequently suspect some organic lesion; but we have in the larynx-speculum a ready means of satisfying ourselves of the true nature of the case. As to the local treatment which the laryngoscope enables us to apply for these nervous affections, I need merely refer to Dr. Morell Mackenzie's very interesting paper, read at the annual meeting of the Association, as showing the practicability of the application of galvanism; although I confess my belief that, in the great majority of the cases there related, the benefit was derived more from the powerful mental impression caused by the operation, than from any special effect of the galvanism upon the local nerves or muscles.

I might readily multiply examples, from my own practice, of the utility of the laryngoscope in dealing with real or supposed affections of the larynx; but I think that already sufficient must have been said to excite a desire on the part of all practitioners, anxious to keep pace with the progress which medical science is making, to acquire a practical acquaintance with the simple instrument which yields such great results, and I shall, therefore, merely add one case, illustrative of the benefit likely to be derived from the practice of rhinoscopy. As I have already stated in a former paper, the examination of the nares presents greater difficulties to be overcome than does that of the larynx; in the subjoined case, however, I had but one interview with the patient, and yet was able to get a view of the parts. I have been baffled in several cases, in attempts to make a rhinoscopic examination, where, I believe, I might now succeed, owing to a little addition I have made to my globe condenser, whereby a patient is enabled during examination, to watch in a mirror the movements of the throat, and to keep them under control.

Ozæna. Necrosis of the Vomer. CASE. Miss G., aged 35, confectioner, consulted me in October 1862. She was of a strumous constitution, and had never been very strong, but for the last few years had been greatly distressed by the extremely disagreeable odour of her breath; perceived, of course, more by others than by herself. She had also considerable discharge from the posterior nares, which she swallowed or hawked up. This was usually muco-purulent, occasionally bloody. Rhinoscopic examination showed the surrounding parts healthy, but the posterior edge of the vomer bare and white; and a discharge, principally mucous, clinging to the spongy bones.

The treatment recommended, was the internal administration of cod-liver oil; and the use two or three times daily of a lotion, consisting of Sir William Burnett's solution, diluted with about one hundred and forty parts of tepid water, to be sniffed up through the nostrils and spat out of the mouth.

I have not seen the patient since, but she has sent messages to me, expressing her great gratitude at being relieved from a complaint of so disagreeable a character. I may state that, I have adopted the same treatment in several other cases where fætidity of the breath had been most abominable, and after trying other disinfectant and astringent lotions, I have invariably found Sir William Burnett's solution, greatly diluted, the most efficient.

Without occupying space by describing the cases, I may state that I have been able to detect syphilitic ulceration of the mucous membrane covering the spongy bones, incipient polypoid growth, and other affections of the pharynx and nares. In all these maladies, and also in those affections of the hearing dependent on abnormal conditions of the Eustachian tubes, the rhinoscope

will, I am convinced, yield the practitioner valuable information.

Before concluding these papers, I wish to add, as an appendix to Part II, a description of an addition which I have lately made to my globe-condenser and stand; and which, I feel confident, renders this by far the most convenient illuminating instrument, not only for examining the larynx of a patient, but also for observing and demonstrating to others one's own larynx.

A small plane mirror, three inches and a half long by two inches and a half wide, is attached, by a stiffly working hinge, to a small horizontal arm four inches long; at the opposite end, this arm is attached by a sliding collar to the right hand pillar of the stand, a thumb-screw being adapted to fix it at whatever height we please. The small mirror must be raised or depressed according to the height at which we place the globe; its position when we are using the instrument should be immediately below and partly in front of the bottom of the globe, and its face should be inclined upwards at a slight angle, so that the person under observation casting his eyes down can see the reflection of the fauces when his mouth is open. By this arrangement, the patient himself can, if it be thought desirable that he should do so, see his own larynx, at the same time that the practitioner observes it in accordance with the rules laid down in Part IV, section B, and at least two other individuals, can, without crowding, by looking over the patient's shoulder into this mirror, see the parts equally clearly with the mirror, while another person, looking from before, his head being on the opposite side of the globe to that of the operator, can see directly into the laryngoscope. Thus, by using the mode of illumination, which, on other grounds, is so far superior to that by any of the reflectors, we are able, not only to get a view of the larynx ourselves, but to demonstrate it, at the same time, to the person under observation and to three other individuals, or, with a little crowding, to many more. Again, the apparatus so constructed is a more perfect and more convenient form for observing and demonstrating one's own larynx than that of Czermak, Moura-Bourouillou, or any other of the special autolaryngoscopic apparatus with which I am acquainted. The operator, seating himself in the position of the patient, clearly sees his fauces with the laryngoscope, all brightly illuminated, reflected in the mirror, and as many persons as can crowd their heads round his so as to look over his shoulder, may get the same view; while others, again, can look straight into the laryngoscope from the front. I would, therefore, recant the advice given at the conclusion of my second paper to those who wish to practise autolaryngoscopy, as to the purchase of Czermak's apparatus; my globe condenser, as now constructed, costing less, being more convenient, and answering, also, as the illuminating apparatus for the observation of others. The stand which I use myself was constructed for me in the country; but as I have several times had inquiries made of me as to where such an apparatus is to be procured, I have given the model to Mr. Matthews of Portugal Street.

I have now carried out the plan which I laid down for these papers in my introductory remarks; and although, from the difficulty of finding time for writing when busily engaged in other duties, I have allowed so long an interval of time to elapse between the appearance of the various parts, that they may give the impression of being detached and unconnected papers, they will, I think, when collected, be found to constitute a complete manual of the art of laryngoscopy. I have avoided as much as possible all superfluous or collateral matter, adhering strictly to what is implied under the heading, "The Laryngoscope and its Clinical Application".

In conclusion, I may state my hope that, as I was one of the few who first worked with the instrument in this

country, I may, by means of our widely circulating JOURNAL, have contributed something towards placing the laryngoscope in the hands of the bulk of our profession.

ILLUSTRATIONS OF THE DIFFERENT FORMS OF INSANITY.

By W. H. O. SANKEY, M.D. Lond., Medical Superintendent of the Female Department of the Hanwell Asylum.

[Continued from page 470.]

THE last case narrated was one of melancholia connected with disorder of the catamenia. The outbreak was in that case somewhat sudden and violent. The next case is similar. Griesinger, in his work on *Mental Diseases*, has a section on Melancholia attended with Excitement or Agitation; and he further divides the section into one in which the patients are violent towards external things or persons, and a second in which the violence is directed against themselves. These cases are attended with depression; yet in many instances they have been classed under Manias, on account of the mental agitation and the violence.

CASE V. A. F., female, was admitted in June. She was 41 years of age; single; a domestic servant. She had lived in service, holding excellent situations, and retaining them for long periods, since the age of 17 or 18. On admission, the disease was described to be of about one month's duration. She was out of place at the time, on account of a housemaid's knee; and was residing with her brother. The knee was going on favourably; but she had gradually become more and more depressed; said "she was sure she should come to want". She complained of a sense of pressure in the head; she wrung her hands, and showed other indications of mental anguish. On one occasion, she went into her brother's bedroom, and took up his razor; but it was immediately taken from her. On a subsequent day, she went up stairs and tied her garter tightly round her neck. Her sister-in-law was below, and heard her fall heavily on the floor, and reached her in time to cut the ligature before life was extinct. After this, or about this time, the symptoms became somewhat changed. She sang almost constantly, day and night; and never slept. She endeavoured to injure herself on a third occasion by beating herself on the head with a poker. She had throughout eaten very badly. The catamenia were entirely suppressed.

She was described, on admission, to be tall, with dark hair, of gaunt figure, spare habit, and pale. Her general health otherwise was not visibly affected. She complained of constipation. She was quiet and tranquil, and submitted herself to the rules of the asylum without complaint. Her manner was tranquil. She had an expression of melancholy. She said she dreaded poverty, and was somewhat reserved.

(From memory, and noted about five months subsequently to the occurrence.) She continued to go on quietly and orderly; was rather retiring, and appeared to shrink from observation, and was indisposed to employ herself. My attention was directed one day to the patient by one of the female officers of the establishment, as a patient who appeared to have very little the matter with her, and one who ought to be occupying herself usefully. This conversation was overheard by the patient, and she was visibly affected by it. For several days afterwards she was more restless and fretful, and more dull. This happened about the middle of August, or two months after A. F.'s admission.

September 18th (or four months after admission). She made another attempt on her life, by tying a handkerchief around her neck, and stuffing another into her pharynx; the attempt was again nearly successful.

October 3rd. The following note was entered. She was depressed, but occupied herself, and had become industrious. She said that her bowels were much confined, and that they never acted without medicine. She had taken frequent aperients. She was thin. She said her appetite was good, but her nurse reported that she ate indifferently. The tongue was moist and clean. She had not menstruated. She was ordered to have aloes and mastich pills daily, and fish diet.

October 21st (five months after admission). She continued in an improved condition; was tolerably cheerful, but was depressed at intervals. The bowels acted regularly, by taking the pills. She had not menstruated.

November 6th (six months after admission). She continued to improve; took the pills; and the bowels acted daily. She was not so frequently depressed. She was employed in the bakehouse, making bread for the establishment, and worked well. She had had for some days mutton chop daily, in lieu of fish.

December. She was visited again by her relatives, who requested that she might be discharged. She had become quite cheerful, and had not shown a suicidal propensity for three months. She had worked freely among knives, etc.; and had been thoroughly trusted, and appeared trustworthy. Her mother, a very aged person, was desirous that the patient should be allowed to reside with her; and the brothers agreed to find the means. The patient was much delighted with this arrangement. The friends voluntarily undertook that the patient should never be left alone. She quitted the asylum in their charge on December 19th.

January 3rd. From a letter from the relatives, the following facts were learnt. She continued quite well up to the above date. On the morning of this day, she complained of headache; and her mother, with whom she slept, advised her to take her breakfast in bed. The old woman went down stairs to make the tea; and, on bringing the breakfast up, found the patient hanging by the neck, quite dead. She had hung herself by the bar of the bedstead.

All the suicidal attempts of this patient were made suddenly. Sometimes this kind of melancholy is attended with sudden attempts directed against others. It constitutes the homicidal insanity of authors. It is, fortunately, a description of case which is rare. My experience extends over about 2400 cases. I have not had a genuine instance in my own practice with homicidal propensity.

In the cases already related, there have been present morbid apprehensions and anticipations of evil, yet scarcely strongly enough marked to amount to distinct possession of the mind—to a belief, which is necessary to constitute a true delusion. In the present day, every one is aware that delusion is by no means a constant symptom in insanity. There may exist illusions simply and alone; or both illusion and delusion may be present together. If a digression be permissible, it is here the place to mention that although authors, at least English authors, describe three kinds of symptoms—viz., illusions, delusions, and hallucinations—there appears really no necessity for such complication; and I believe that all the phenomena may be brought under two divisions, and that the three have arisen from some confusion in terms. Esquirol was one of the earliest writers to point out the existence of the two classes; and, as he wrote in French, he used the two French terms *illusion* and *hallucination*. There is no such French word as *delusion*: the English, in fact, of the French word *illusion* is *delusion*; and the English of *hallucination* is *illusion*. This difference in the prefixes between the two languages is very common, as in *reclusion* for *seclusion*, *contraint* for *restraint*, etc.; and hence has arisen the confusion.

If a patient hear a voice proceeding up the wall, con-

stantly addressing him, it is a false perception; and it is, therefore, an illusion or hallucination, which are synonymous terms. If the patient believe that he is a king, it is a delusion; and if the former patient believed that the voice from the wall proceeded from people actually in the wall—that is, if he believed there were people imprisoned there—it would be a delusion. The two conditions are, in fact, distinct, and yet in some cases approach or merge into one another; but the two terms appear ample to include all the phenomena which are met with. In brief, the one is a false perception, and the other a false belief. In the next case, the existence of these phenomena in various forms was manifested. The case is narrated in a very condensed form.

CASE VI. A. G., married, aged 56, had been six weeks insane on admission. *Predisposing Cause.* Her father committed suicide. A brother was at present an inmate of an asylum. The *exciting cause* was reverse of circumstances, and poverty.

The attack commenced by a strangeness of conduct and depression. She said "they were going to hang her, and to take her to prison." She had numerous other apprehensions of being injured in various ways. She was always "worreting". A few days prior to admission, she secreted a razor about her dress; became rather violent and excited; and was taken to the work-house.

The medical certificate states: "She says that a large clot came away from her five months ago. She feels ill all over; says her womb is affected; and frets that she did not tell the doctor so five months ago. Has attempted to cut her throat, and her husband's also. This statement is made by her husband; and the razor was taken from her by her son."

On admission, she was thin and feeble, and had several slight bruises about the chest, and a mark across the throat. Two days afterwards, or on the forty-fourth day, she was in a constant state of action, and in great mental distress; was rubbing her knees with an agitated, restless, rapid movement; fidgeting in her chair; and expressing a constant apprehension of being about to be burnt alive. She said, "Surely they might kill her without that." She could see the men burning people. She was thirsty; pulse 120. She took her food well, and slept pretty well on the previous night.

45th Day. She had an anxious expression; was still very restless; was under a constant dread of being burnt. She would not show her tongue. She took her food well. An ordinary cathartic pill and draught were prescribed.

50th-55th Day. There was slight improvement in her mental state. She was still apprehensive of imaginary dangers, and regretting various trifling things in her past conduct. The tongue was red; the bowels confined; appetite good. She was ordered to have carbonate of magnesia mixture three times a day.

63rd Day. She fretted less, and was looking better. She took food well. The bowels acted, but not daily.

94th Day. She had begun to occupy herself. She had gradually ceased her restlessness and agitation, and had lost the feeling that she was going to be burnt. The bowels continued to be confined. An aloes and mastich pill was ordered to be taken an hour before dinner.

120th Day. She had a visit from the husband, who reported that she was much improved, and had been conversing quite rationally. Her spirits were good; but he thought he perceived some difference in her manner from the natural.

150th Day. She was occasionally a little dull. She, however, alluded to her former fears, and spoke of her illness as a family complaint.

She was discharged on trial on the 164th day; and finally on the 192nd day, recovered.

The note scarcely expresses the strength nor the per-

manence of the belief that she was about to be tortured, which amounted to a fixed delusion; nor the reality with which she imagined she saw the preparations making for her injury, both of which were frequently repeated, and their reality strenuously asserted for some time. The gradual growth of a notion (at first springing from an uncomfortable condition of mind, as when it is querulous, when it finds relief in grumbling or complaining) into a fixed illusion appears to be merely a process of maturation, or a transition. A state of feeling in which it is a relief to grumble is the first stage, when every trivial circumstance is converted into a source of complaint. The mind is then led to look on the black side of affairs; next, perhaps, to assert an habitual or continual flow of ill luck; to imagine all sorts of new disasters; to invent all kinds of uncomfortable catastrophes; and at last to begin to believe in their actual occurrence or presence. These morbid apprehensions originate from within; they do not arise in a logical series of mental reasoning, but are of centric origin—excited by a morbid action, probably, and thus are "the very coinage of the brain".

The reality of these convictions to the patient is very great. Another melancholic at present under treatment imagines she hears the voices of persons confined in dungeons below, and, it would seem, at some distance off. The voices appear to vary at different times; sometimes it is the voice of a friend, sometimes of a child, the clergyman of her parish, etc. "What a shocking thing it is," she says, appealing to me, "that all those dear people should be imprisoned down there. They have wives and children. Do, for heaven's sake, come and release them." In asking her to indicate the spot where they are, and giving her full scope to follow the sound she thinks she hears, she leads one through ward after ward, down one staircase after another, stopping frequently and anxiously to trace the sound; often stooping down to any small aperture, as that of a ventilator; wanting every door, every cupboard, to be opened; still going lower down, till she goes on her knees to listen at the cellar windows, and crying out frequently, "Mr. A., are you there?" and listening anxiously for a reply, and entreating our silence in order that she may catch the sound, but which is continually retreating from her; and then again rising and saying, "It's gone further off;" and repeating this as long as she would be allowed. The mental pain and anguish in such a case appear very great.

When a true delusion exists, the intellect proper is clearly involved. In few cases only, in the first stage, is there an impaired condition of the understanding. There may be slight alteration in memory, in judgment, and powers of reasoning; but the main symptoms are connected with the feelings and instincts, or the moral faculties, as they are called. The progress of the phenomena appears first to be towards the perception, as denoted by illusion or hallucination; and then to the intellect proper, giving rise to actual delusion. In other cases, the progress is in another direction; commencing in the moral faculties, it gradually involves the motor functions. The motility and volition are affected; cases illustrative of which will form the subject of the next paper.

THE MEDICAL PROFESSION IN VIRGINIA. The following is extracted from a letter received from a physician in Norfolk, Virginia, by a Confederate officer now in London. "I am now a gentleman of elegant leisure, not being allowed to practise my profession upon innocent women and children without swearing true allegiance to the Yankee Government. While you are abroad, do go to the Feejee and Sandwich Islands, and let me know if there is anything like this there." Our correspondent adds: "The people are dying in numbers from want of medical attendance."

Transactions of Branches.

MIDLAND BRANCH.

CASE OF FIBROUS TUMOUR OF THE ANTRUM, IN WHICH THE JAW WAS EXCISED.

By S. W. FEARN, F.R.C.S.E., Surgeon to the Derbyshire General Infirmary.

[Read at Derby, July 2nd, 1863.]

THE notes of the following case are transcribed from my hospital case-book almost as they were written; and as they were not at the time intended either for publication, or to be made use of as I am now using them, I fear you will think them meagre, and hardly of sufficient interest to warrant me in taking up the time of the meeting by their perusal. They relate, however, to a disease of rather uncommon occurrence, and to an operation but rarely witnessed in the provinces; and as I shall, moreover, exhibit to you the morbid growth, a preparation of which is on the table, and bring before you the patient for your examination, I hope to be able, for a few brief moments, to secure your attention.

Mary Rogers, aged 15, was admitted into the Derby Infirmary on July 7th, 1862, presenting the following appearances. There was a tumour occupying the site of the right antrum. It had been growing about two years, and did not seem to have originated in any injury. It was externally ovoid, and produced a marked bulging of the cheek. Several of the molar teeth on the same side had been extracted; and within the mouth there was a broad ulcerated surface about two inches in diameter, the inner margin of which approached the middle line of the palate, and it extended backwards to the pterygoid processes of the sphenoid bone. This ulcerated surface covered the mass of the morbid growth within the mouth. Her general health was feeble, and she suffered at times a good deal of pain in the swelling.

On July 22nd, in the presence of a considerable number of medical men, I operated upon her in the following manner. An incision was first made through the cheek, from the middle of the malar bone to the angle of the mouth. The flap was dissected upwards to the margin of the orbit, and as far forwards as to open thoroughly the nasal cavity. The malar bone was next cut through with strong forceps into the sphenomaxillary fissure; the muscles were carefully detached from the floor of the orbit; the ascending ramus of the upper maxilla was divided into the orbit; and after cutting with the forceps through the alveolus and hard palate, the whole mass was wrenched downwards with the lion-forceps, and, with a little careful dissection, detached. The jaw was divided into the palate through the socket of the canine tooth, which had been previously extracted. There was very free bleeding; but only one vessel required ligature. The parts were brought together with interrupted wire sutures and strips of plaster; the cheek having previously been supported with pledgets of lint. The patient was unfortunately conscious during the greater part of the operation, the effect of the chloroform having very soon gone off; and it was impossible to repeat it on account of the danger of suffocation from the hæmorrhage. She was seated in a chair during the operation.

In the evening, I found her pretty comfortable. There had been a good deal of oozing, and the pulse was somewhat quickened. She was ordered a third of a grain of morphia and twenty drops of spirits of nitre.

July 23rd. She had had a good night, and had slept from the opiate. She was feverish; pulse 120; bowels not open yesterday or this morning. She was ordered to have an injection of gruel and castor oil; and tea or

arrow-root for food; and the cheek to be kept wet with cold water.

In the evening, the bowels had acted twice freely. Pulse 116. She was ordered to repeat the morphia. The case altogether was very satisfactory.

July 24th. She had had some sleep in the night; and was rather feverish. Pulse 92. Her bowels were not open. She had had twitchings of the limbs when raised up, and complained of pain in the head. She was ordered to have a saline fever medicine every four hours, with an eighth of a grain of morphia in each dose; and to repeat the injection.

July 25th. The twitchings of the limbs continued. There was decided tetanic threatening. The injection had acted only slightly on the previous day. She was unable to take the medicine, on account of the smarting it occasioned. She was ordered to have an injection of castor oil and turpentine (an ounce of each) with a pint of gruel, and to take a sixth of a grain of morphia every four hours.

In the evening, she was rather better. Her bowels had been open once, not very freely.

July 26th. The wound was dressed. It had united throughout by the first intention. The patient was rather flushed; pulse 96. The discharge from the mouth was offensive. The bowels were confined. She was directed to repeat the castor oil and turpentine injection; to continue the morphia; to use a chlorinated lotion to the mouth occasionally; and to have mutton, tea, or other nourishment *ad libitum*. There was much less twitching.

July 27th. From this date, recovery went on rapidly. The sutures were removed, and union found to be perfect. The bowels required the daily use of the injection. The twitching had nearly subsided by the 28th; and on the 31st, nine days after the operation, she was allowed to get up.

Aug. 2nd. She was ordered a mixture containing quinine and small doses of morphia; and on the 24th, was discharged cured.

I shall not think it necessary to trouble you with many remarks on the foregoing case. As I said at the commencement, we but seldom see jaw cases in our provincial hospitals. Four years ago, when the Branch met in this room, I had the pleasure of bringing before you a similar case in which I had operated; but with these exceptions, I have known but of one instance during nearly forty years in which this operation has been attempted. This occurred in the practice of my predecessor, Mr. Douglas Fox; and although, from the malignant nature of the disease, his efforts were not crowned with success, I well remember the skill and boldness he evinced in the performance of one of the most formidable operations I have ever witnessed. It is now an admitted surgical axiom, that all attempts to remove malignant growths from the bony structures of the face are worse than useless.

The case of my patient was to me very interesting, from the completeness of the recovery and the rapidity with which it took place. I have often observed how quickly wounds of the face heal, especially in young subjects; and, indeed, in my previous case to which I have alluded, though the patient was forty-four years of age, she walked from Spondon, a distance of four miles, five weeks after the removal of the jaw.

When the disease is confined to the antrum, there is one point in the operation which I think of importance. I mean the preservation of the incisor teeth on the affected side. In my last case, I made the cut into the nostril and palate through the alveolus of the canine tooth, which kept me quite clear of the antrum and left a better support for the upper lip. So, also, I think it desirable, when the disease is similarly limited, to avoid, as much as possible, the malar bone.

With regard to the external incision, I think, in all

ordinary cases, the single incision, from the os mæle to the angle of the mouth, amply sufficient to give room for the after steps of the operation; though, in my first case, I made, in addition, the usual incision by the side of the nose and through the centre of the upper lip. Mr. Fergusson, I believe, has accomplished the operation, making only an incision through the centre of the lip; but in the hands of most surgeons, I apprehend this would add considerably to the difficulty.

There is only one other point to which I will advert. We are told in works on operative surgery, before clearing the floor of the orbit, to separate from its attachments the infra-orbital nerve, so as to avoid its division; but as it ordinarily runs through a bony channel, it will be found by no means easy to do this. In both my patients, the nerve was divided; and though for a time there remained a little numbness, no other evil has resulted.

The tumour, as you will see from the preparation, entirely fills up the cavity of the antrum, and, besides the bulging it has occasioned in the palate, has begun to encroach on the orbital cavity and the pterygo maxillary and speno-maxillary fissures. It is of the fibro-cartilaginous kind.

[The patient was brought into the room, and examined by the members; and Mr. Fearn afterwards introduced a man upon whom he had, three years before, performed the operation of excision of the os calcis. The whole of the bone, with the exception of the articulating attachment to the astragalus, had been removed; and the recovery was so complete, that the patient has since walked as much as twenty miles in a day. Out of three cases in which Mr. Fearn has excised the os calcis, two have been successful.]

British Medical Journal.

SATURDAY, NOVEMBER 14TH, 1863.

PROFESSOR CHRISTISON AND HIS CRITICS.

DR. CHRISTISON has run his head into a hornet's nest. He has ventured to doubt the fallibility of Registrar-General's statistics. He has not been able to connect typhoid fever with bad drains and foul sewers. He has ventured to assert that epidemics of typhus fever are connected with low wages, and short commons, and bad ventilation; and that he cannot account otherwise for their origin. He has suggested that ague may possibly have some other cause than marsh malaria. He has recommended master-tradesmen, and other authorities, to work the sedentary lower class population fewer hours, and give them more air and exercise. And he has thrown out a few very philosophic and suggestive hints on other points of public health. In doing this, he has, it appears, trampled on the corns of some of our standard sanitarians, who have laid down laws respecting the origin, and progress, and consequences of certain diseases, founded on the infallible (?) method, numerical or statistical. There is really something quite amusing in the manner in which Dr. Christison has been overwhelmed by our two weekly cotempo-

raries, the *Medical Times and Gazette* and the *Lancet*. One week these journals belauded his address to the skies; and on the following week condemned it to ruin. The praise was evidently the effusion of generous spirits; the attacks we may designate fairly enough by the term of a deliberate after-thought. To prevent any mistake, we will just give the very words of these medical critics.

The *Medical Times and Gazette*, for example, in two consecutive weeks, turns out the two following exactly opposite opinions of Dr. Christison's address. We hope that on another week the journal will tell which is its real opinion.

Med. Times and Gazette,
October 24th, 1863.

"Dr. Christison, by his recent address, has added another to the many services which the medical world owes him. He has struck a just and decided blow at the dogmatism which has recently prevailed in respect of some febrile diseases, and has entered a judicious protest against that over-narrowness of view which is no uncommon accompaniment of advancing pathological research. It is the tendency of all observers, in the presence of new, striking, and precise facts, to contemplate them too exclusively, and to move in too small a sphere, from which vaguer and less understood, but not less real influences, are unconsciously shut out. But theories precise and restricted are as great a hindrance to science as laxity and diffuseness; and the pedantic adherent of cramped systems is perhaps a worse practitioner than one who occasionally indulges in unrestrained speculation."

Med. Times and Gazette,
October 31st, 1863.

"Dr. Christison has taken our breath away, and now that we are beginning to recover from the shock, we are disposed to look round to the bystanders, and ask if his blow was a fair one. For a long time past we have been striving with might and main to inculcate and enforce the doctrine that dirt in all forms—dirty air, dirty houses, dirty food, dirty water, dirty clothing, and dirty skins—were among the most influential of the causes which promote the spread and fatality of disease. And now we are told almost in so many words that we might have saved ourselves all this trouble; for if Dr. Christison be right, we have most assuredly been labouring under a delusion, which has, moreover, cost the metropolis the expenditure of a kingdom's income."

The *Lancet* has followed suit, as will be seen from the following opposites contained in its pages:

Lancet, Oct. 24th, 1863.

"The address of Dr. Christison on Public Health is peculiarly worthy of careful perusal. Unlike most addresses of the kind delivered before a lay audience, it deals with questions in State Medicine not yet decided, and expresses opinions adverse in many respects to those which are commonly entertained. The ability, experience, and authority with which the orator delivers his views, give them great importance in

Lancet, Nov. 7th, 1863.

"The importance of the views propounded by the President of the Sanitary Section of the Social Science Congress in the address which we have published in our two last impressions, is very great; we could wish that they were of equal soundness.... If Dr. Christison was wishful to teach amateur sanitarians a lesson of humility, his address might be regarded as a masterly example of irony.... The reader who regards

the eyes of the nation; and for this reason, as for the *intrinsic scientific value of the conclusions** which Dr. Christison now draws from a life-time of observation, we commend to the thoughtful consideration of our readers the discourse, which we publish in full. It will be observed that Dr. Christison admits the extreme, nay, vital importance of the removal of all forms of sewage, and the abolition of overcrowding; but he contends that these are not agents of primary importance or of immediate action in exciting fever."

it as a grave exposition of matured opinions plunged into a maze of inconsistencies and contradictions; and physis must, we fear, perforce, despite its just reverence of Dr. Christison, repudiate his opinions on this subject, and decline to accept his statements of the present position and prospects of sanitary science... Dr. Christison's positions will remind many of the civilian disputants in the celebrated discussion on the nose of Slawkenbergius, whose objections, if anything, proved that the subject in debate was neither true nor false."

Thus, as our readers will see, the *Lancet* and *Medical Times and Gazette*, speaking in the first instance, we may suppose, the natural sentiments excited in their literary and scientific breasts by a perusal of the professor's address, laud his eloquence and philosophy to the seventh heaven of praises. But, alas! for human praise and human wit, scarcely was the pæan sung, than the antistrophe had to be croaked forth, after the fashion of an old Greek chorus. Too late for their own consistency, these sanguine editors learnt, or were taught, that the doctrines, and views, and opinions of the Edinburgh professor, were not the doctrines, and the views, and the opinions of the A 1 London division of our sanitary police. They have, however, it must be confessed, done their best to repair the original error committed by them. And we will certainly do them the credit of saying that they have worn the white sheet and made their public *confiteor* in a most creditable manner. They have cast from them their idol of a week, and trod him under foot most unsparingly. May the sacrifice not be in vain! Let it be a lesson to them in future never to praise a great man without sufficient knowledge or authority.

Now, as we were the first to lay before the profession a summary of the masterly and eloquent address of Professor Christison, and have had no occasion to reverse our estimate of it, perhaps we may venture to make a few remarks on the extraordinary literary fiasco exhibited as above to the profession. Moreover, we had the pleasure of hearing the professor deliver his address, and have read it carefully since; and we will venture to say, on the strength of such knowledge of the matter, that never has man been more thoroughly, and perversely, and stupidly misinterpreted, than he has by our clever contemporaries.

No doubt the worthy professor was well aware that in his address he was touching upon irritable

soil; but he will hardly have been prepared for this lesson from the original programmes first issued by the *Medical Times and Gazette* and *Lancet* in his favour.

Let us follow out his critics. In the first place, the Statisticians are down upon him, and why? Because he said, and proved, that the Registrar-General's returns of deaths are, in many particulars, very faulty, and, therefore, very misleading. It is true, he only stated what we all know to be a fact; but still he made the statement, and must bear the consequences; and if such be the case, what is more certain than that "the statistical method of settling them may be quite as open to fallacy as any other?" What is more certain than that data drawn from false statistics are "more fallacious than any other?" What Dr. Christison really and simply said and suggested was this: your statistics are, in many particulars, manifestly fallacious; try and reform your method of taking them. This was his first crime. Again, he has been jeered at because he stated there were grounds for believing that agues and marshes were not of necessity joined together as effects and causes. Now, what the Professor really did, was to throw out, under this head, a most philosophic suggestion. There are grounds, and good grounds, he said, for believing that agues disappeared from some parts of Scotland before the country underwent draining. But let our readers refer back to his account of the matter. And then, said he, if this be so—if there really be other causes in operation effective of the removal of ague, of which we have not yet taken account—let us try and find them out, and then give our colonies, etc., the benefit of the advice. But it is thrown in his teeth, that Professor Christison said, draining is of no avail in stopping ague!

Then, again, the Professor is attacked because he does not hold orthodox—i.e., some other people's—views respecting the origin of typhus and typhoid fevers. And not only this; his views, and even words, are misinterpreted. For example, the *Lancet* says:

"When he deprecates the idea that it may be generated by 'foul air,' he confounds different forms of foul air under a common designation."

Now, Dr. Christison does nothing of the kind. His words are:

"I do not mean to deny that foul air of some kinds may sometimes cause typhus. But there must be better proofs than now exist before this can be admitted as the constant or even general fact."

The truth is, that Dr. Christison, instead of raising doubts, and difficulties, and scepticism, as he is accused of, teaches conclusions of the most practical value. He wants to get medicine out of the old groove of error. He says:—

"The great lesson to be learnt from my investigations into the history of the causes of typhus, etc., is this:

* The italics are our own. EDITOR.

That typhus never can prevail in the epidemic form in face of employment for the working classes and ventilation of their dwellings."

Now, we will venture to say, that these words are golden words—though they may be called commonplace and "not practical" by his critics—when spoken to the country at this time. Dr. Christison said no single word in disparagement of draining, etc., let it be remembered; but what he did say was this: Do not you municipal authorities and great sewerage men think you will have done all when you have laid down perfect drains. Drains are good, and good drains absolutely necessary; but you seem to think that drains are everything. Now, I, Professor Christison, who have had half a century of experience of Edinburgh fevers, tell you this, as the wind-up of my experience on the subject; that typhus fever will not prevail in an epidemic form, so long as your people are well fed and their dwellings well ventilated; and, *per contra*, despite your good drainage, that typhus will prevail if your people are ill fed and their dwellings ill ventilated. Now, why is Professor Christison to be attacked right and left, reasonably and unreasonably, simply because he ventures to express his own opinion, and to teach and to enforce upon authorities such an important lesson as this, the result of his great experience? The only answer which we can suggest is, that he has committed the crime of venturing to doubt the complete overwhelming efficacy of good drainage as a preservative against fever.

Of course, also, Dr. Christison's remarks on enteric fever do not please his critics either. He gives his assent to the theory of the origin of this fever, which—whether true or otherwise—has been so acutely and philosophically illustrated by Dr. Wm. Budd; viz., that it may be traced to some specific source; to some particular and essential ferment—just as admittedly specific diseases, small-pox, etc., are traceable. But he admits, what his critics do not do him the justice to state, that "foul air favours its invasion."

"We do well" (he adds) "to encourage better drains, more and better water-closets, and better ventilation of dwellings, still we must not count upon thus extirpating enteric fever."

Now, we should like to ask these fierce critics of his this question—Are you ready to assert, that enteric fever would be utterly extirpated if drainage was absolutely perfect; that is, if no foul air could ever escape from drains? But if not, in what particular, then, do you practically—*i.e.*, as regards the preventive measures to be taken against the occurrence of the fever—differ from the Professor?

Again: his critics tell us that the advice he gives concerning tubercular diseases is "not a whit more satisfactory or practical." Now, truly, these gentlemen must be positively blinded with mental emo-

tion. That our two weekly cotemporaries—the *Medical Times and Gazette* and the *Lancet*—should on two consecutive weeks, as we have shown, call the professor's address first of all most white, and then most black, seems curious enough; but boldly to state that Dr. Christison's remarks on the head of tubercular diseases were not "practical" was a feat left for the *Lancet* alone. Our readers shall judge. After a most careful analysis of the tale told by the Registrar-General's mortuary returns, Dr. Christison recorded, or rather told a large body of the assembled wealth and intelligence of Scotland, what seemed to him the right cure for the deplorable loss of life from tubercular diseases, as shown by those returns. And there is nothing "practical" in his suggestions! We have the word of the *Lancet* for it! Let us see.

"The discovery of the necessary measures," he says, "for the abatement of the ravages of tubercular diseases, is a duty which it peculiarly becomes this Association to press upon the Government of the country, and also upon the great, the wealthy, and especially those whose business of life it is to amass wealth through the labour of the working classes, and whose requirements have occasioned the concentration of the people in overgrown towns, with all its concomitant evils."

He then goes on to say that his investigations drive him to the conclusion that, as a general rule, "defective exercise and exclusion from the open air are the chief causes of tubercular diseases in large towns;" and he calls and urges upon the wealthy and the powerful the duty which devolves upon them of making systematic provision for these wants, costly though such provision may be in large cities. Moreover, he boldly calls upon employers to yield up to the working classes "a proportion daily of that time which is now too entirely demanded of them for the toils of their craft, etc." Such like lessons, read to the intellect and wealth of Scotland, are, the *Lancet* assures us, "neither satisfactory nor practical."

We have, however, said enough to show the character of the criticisms which have been let thus prominently loose upon what we shall still venture to call a most able, masterly, philosophic, and practical address. And of its critics we will only further remark, that we trust, as they advance in wisdom, they will enlarge their sphere of critical considerations, so as to be able to embrace and fairly estimate the value of conclusions and opinions which do not happen to coincide with the conclusions and opinions of their own private and individual experience; and, above all, that they will curb that ordinary result of anger which brings men, through its blinding influence, to criticise with passion, and, of course, to criticise unjustly. Truly we regret that they have not been equal to reach to the height of the professor's argument.

FATAL CHLOROFORM.

SOME of our readers may have been struck by the number of deaths which have occurred in London through the administration of chloroform for surgical purposes during the last two or three months. Six are recorded. There is really something extremely deplorable in these frequently recurring calamities; and we cannot help thinking, from the very fact of their frequency, that there must be some degree of blame attaching to the administration of the narcotic instrument. We do not hear, in any other city or country, of such wholesale (if we may use the term) loss of life from the inhalation of chloroform. We refer to the subject for the purpose of asking whether all that due care and solemn preparation, which the gravity of the affair actually requires at our hands, are made and practised in the administration of chloroform. The number and the constant repetition of successful administrations of chloroform are, we fear, apt to engender in the surgeon's mind a certain degree of confidence and consequent carelessness concerning the use of chloroform. We cannot but suggest that surgeons in general are too apt to relieve their own shoulders of the responsibility attaching to the giving of chloroform; and this, too, without making proper provision for its administration by capable and trustworthy hands. What do we find in the preparation made as regards the management of this important affair? Are there attached to all our hospitals proved and experienced medical men, told off for the express duty? Certainly not. The business is allowed to fall, with few exceptions, into the hands of almost the first comer, as if it were really a matter of very secondary significance, instead of being, as it is in truth, a most serious operation—of far more danger and importance often than the actual surgical manœuvre itself which the patient is about to undergo. We have heard, indeed, even of the operator himself administering the chloroform in private practice! We must confess that we think surgeons are to blame somewhat in this matter for not insisting that the chloroform shall be administered only and solely by those gentlemen who have given a special attention to the subject, who have been selected for the purpose for their special knowledge of it, and who assume the whole responsibility of giving it.

We believe, in truth, that the actual number of deaths which occur is really only a very partial indicator of the number of cases in which the chloroform is improperly administered. Every one's experience must have brought him acquainted with, we might say numerous, instances in which the patient was "almost gone", was "never expected to come round"; and where, in fact, the patient was recovered only through the most energetic efforts of the attendants. The truth is, that if the number of deaths go on in-

creasing, a reaction will be setting in against the use of chloroform, and the use and value of one of the greatest of modern medical blessings will be much interfered with. The sooner, therefore, the Chloroform Committee enlightens us on the subject, the better. It is evident enough to us that some sort of authoritative declaration is required in reference to the right method of dealing with this beneficent though deadly weapon. At present we find, as regards its mode of administration, no kind of uniformity; although every one's common sense must tell him that one particular method must be the best of all, and therefore is the right one. Moreover, no regulations have been yet generally adopted as guides to its administration; no rules laid down and accepted as to the best way of reviving those who have been poisoned by it. We deal with a most fearfully powerful agent—deadly poisonous, as it so often proves itself to be—really in a sort of rule-of-thumb fashion, and without any proper consideration—*i. e.*, without making any due allowance for the possible occurrence of its deadly properties. Of course we are writing of what seems to us to be the general misuse of the substance. We know perfectly well that, by certain parties, the greatest care is on all occasions used in its administration; that the administrators feel all the time the responsibility which rests upon them—never taking their finger from the pulse of the patient, nor ceasing to watch the play of the features and the respiratory movements. But such careful dealing with the matter is, we fear, quite exceptional; and we cannot but regard the fact of the occurrence of so many fatal cases as a proof that the general rule is a careless administration of the chloroform. No doubt, considering that a Chloroform Committee has taken the matter in hand, we must wait for their report before we can expect any general distinct rules to be laid down or accepted; but in the meantime we do call upon surgeons to take the needful steps, which they can take, for procuring the administration of the chloroform by experimented hands. It is not right, in our opinion, to trust the matter to the hands of house-surgeons and advanced students. The operation ought to be entrusted solely to those who are capable of bearing the responsibility which may attach to the administering of chloroform. We are satisfied that, if surgeons themselves do not take the subject up in this way, it will be taken up for them by the coroner's jury. The coroner and his jury, under the pressure of these numerous deaths from chloroform, will begin to make "further" inquiries into all the circumstances of the case; and we may be very sure that the first question to which they will demand a satisfactory reply will be: By whom was the chloroform administered? And they will not be contented with the answer, that "it was given by Mr. X., our house-surgeon, who has had

much experience in the matter." They will demand (and most properly demand) that it ought to be administered by some regularly appointed and responsible individual, who has given proofs of his capacity for the office. The number of deaths from chloroform lately recorded are, as we think, a demonstration of the fact that the administration of it is not at this present time entrusted to fitting and the most capable hands, and that the operation of giving chloroform is too lightly considered by our surgical authorities.

THE WEEK.

OUR readers will have observed, in our last week's JOURNAL, that a petition has been presented by the British Medical Association to the Council of the Royal College of Surgeons of England, asking the Council to take means to enable Fellows of the College residing in the country to record their votes at the election of Members of Council by voting-papers, as is done at the elections of Oxford and Cambridge Universities. The petition has been presented at a very favourable moment; for we believe that there is rife in the Council at this moment a strong desire of doing justice and meeting the requirements of the profession of 1863. The prayer of the petition in question is most reasonable. Fellows were created to elect the Council. But Fellows who reside in the provinces cannot attend and vote personally, for obvious reasons. The majority of Fellows are, therefore, virtually deprived of their greatest and most important privilege; and the election of Council consequently falls almost wholly into the hands of the metropolitan Fellows. But this is neither fair to the Fellows at large, nor, as we believe, favourable to the interests of the Council and the profession. Manifestly, the wider the electing constituency, the less chance is there of elections being made through favour or cliqueism; and the very fact of the residence of the Fellow in the country lessens the chance of his being influenced by private motives of personal friendship and acquaintance. Indeed, we may truly say that Fellows in the country are much more likely to take a dispassionate view of a candidate for the Council's real merits and fitness, than are Fellows his friends, neighbours, and local admirers. Moreover, the election by voting-papers would enable the country Fellows to obtain due consideration for the interests of the country surgeon. And such an enlarged constituency would probably have another good effect: it would prevent any possible jobbing and canvassing and by-play which is at present supposed to be a necessary part of these College elections, and which make some surgeons declare that they will never offer themselves for the Council membership.

THE two actions of Beck v. Farey and of Beck v. Sterne have been again under the notice of the Court of Queen's Bench. On the last occasion, Dr. Snow Beck lost one cause and gained the other. The results, consequently, were unsatisfactory to the defendant Farey in the one case, and to the plaintiff Beck in the other: hence these applications for new trials. As far as Dr. Beck is concerned, his dissatisfaction will be doubled by the result of the applications; for Farey has obtained a new trial, and he himself has been refused one. The report runs as follows.

"BECK v. FAREY. This was one of two rather remarkable actions brought by the plaintiff, a medical man, against two persons named Farey and Sterne, to recover fees for alleged medical attendance so long ago as 1859, and for which no claim was made until after a quarrel between them and the plaintiff. The cases were both tried at the last assizes at Croydon. The former resulted in a verdict for the plaintiff; but in the other action, against Sterne, the plaintiff failed. In the present case, as in the other, there was strong evidence that the alleged attendance by the plaintiff had been friendly visits, or gratuitous attendance on the occasion of such visits; but £10 was paid into court: and, as the learned judges now observed, this probably explained the verdict in favour of the plaintiff in this case. The learned judge stayed execution; and Mr. Serjeant Petersdorff, on the part of the defendant, moved to set aside the verdict, as against evidence. The Court said they would consult the learned judge, Mr. Baron Channell; and, having done so, they to-day said that they should grant a rule nisi to set aside the verdict.

"BECK v. STERNE. This was the other of the two actions above mentioned; and it was a claim for £559 for alleged medical attendance during a lengthened period of time, some years ago, between November 1856 and July 1859. The case was tried before Mr. Baron Bramwell and a special jury. The case for the defence was, that the "attendances" were really gratuitous, and took place in friendly visits, for which it was never intended or understood that there should be any charge; and further, that for any services really rendered, the plaintiff had received payment, or presents. The jury, having heard the plaintiff and his witnesses, at once made up their minds against him, and, without requiring to hear any evidence for the defence, found a verdict for the defendant, upon which the learned judge expressed a strong opinion against the action.

"Mr. Serjeant SHEE, on the part of the plaintiff, moved for a new trial, on the ground that the verdict was against evidence. The learned serjeant said that the case had been really blown out of court by judge and jury. They laughed the case away. [Laughter.]

"THE LORD CHIEF JUSTICE. I am afraid you would not wish us to refer to the learned judge.

"Mr. Serjeant SHEE. Oh, no! my lord. I know well what he would say. [Laughter.]

"Mr. Justice MELLOR asked when the first account had been sent in.

"Mr. Serjeant SHEE said certainly no account had been sent in until no long time before action.

"THE LORD CHIEF JUSTICE said the Court would consult the learned judge; and the Court, having done so, refused a new trial."

A COMMITTEE was lately formed at Vienna, consisting of Professors Dlauhy, Hebra, and Sigmund, to point out, if possible, how prostitution might best be brought under municipal regulation. We recom-

mend the conclusions of this Committee to the consideration of the editor of the *Saturday Review*, and of those other editors, medical or other, who think that the proper way to deal with the evil here is to introduce into the country a governmental regulation of it. These are the results of this Committee's labour; and it may be remarked, that most assuredly neither respect for the liberty of the subject, nor any great horror at making prostitution a state affair, were the reasons which led to the conclusions. They were the plain teachings of common sense and experience.

"1. The supervision of houses of prostitution does not answer its object, because experience shows that in other cities, where such supervision exists, prostitution is carried on in unlicensed houses.

"2. The examination of prostitutes by physicians at their own houses, or at established places, does not answer its object, as infection may take place immediately after the examination; and the woman may then ply her trade still more effectually, as she bears with her a certificate of cleanliness."

The Committee then go on to recommend that, in all quarters of the city, medical men should be appointed to give gratuitous advice and physic to diseased women. In this way the Committee hope to induce the women to take care of their own health. This proposal is based on the principle of equal dealing, as the means of obtaining medical aid at their own houses should be offered to the poorer as well as to the richer classes, and compulsory residence in hospital in this way be avoided. It is added, that compulsory residence in the syphilitic wards of the hospital tends to the demoralisation of the women, rather than to their moral improvement. Such is the method authoritatively recommended to the notice of the paternal Austrian government.

We believe it is the intention of Mr. Coulson, High Sheriff of Cornwall, to offer himself as a candidate for the honour of representing West Cornwall in Parliament.

At a meeting of the *Senatus Academicus* of the Edinburgh University, held on the 7th instant, Mr. Syme was reappointed their representative in the Medical Council.

Our readers will be pleased to hear that the attempt to procure a new action in the case of *Morgan versus Lingen* has completely failed. Dr. Lingen will, therefore, be relieved of all further trouble in the matter. On the application for a new trial the other day:

"The Court, after hearing the case argued at considerable length, were of opinion that there was no ground for disturbing the verdict. Baron Martin added, that he never heard anyone give evidence in a more satisfactory manner than the plaintiff had done; and he could hope that the matter might be allowed to rest where it was, without calling upon her to pay the costs of the action. The rule was refused."

Why Dr. Lingen, after being most unjustly (as proved by the result) subjected to a very expensive and annoying law-suit, is not to call upon the plaintiff for his costs, is a matter quite inexplicable to us. We think Dr. Lingen will be very wrong to follow the Baron's opinion.

THE Police Reports inform us, that a woman was last week charged "with stealing a gold watch and chain from a young woman in the waiting-room of Guy's Hospital." Of course persons who wear gold watches and chains are "proper objects of the charity".

A child, 2 years old, was, on August 12th last, presented to the Academy of Surgery by M. Chassaignac, as an example of syphilis communicated by vaccination. The child was examined by MM. Cullerier and Guersant, and the disease declared by them to be a typical specimen of syphilitic vaccination.

The French Medical Association has just held its annual meeting in Paris, under the presidency of M. Rayer. The society is five years old; and already numbers 5,746 members, having from its birth gone on gradually increasing. It consists of ninety local societies; and has at its disposition a sum of about £12,000.

M. Frary, writing of the bad pay of the doctors of the poor in France, says: "Have they not a just right to complain that society leaves entirely and most unjustly to their charge the obligations which ought to be borne by all? Why should they be called upon to give gratuitously their time, which is necessary to them in order to procure the material resources required by themselves and their families? People think they have paid them well for their devotion and their sacrifices by telling them: 'Happy are you to render such services. You are heaping up for yourselves treasures of thanks! The poor will ever bless you!'"

The death of Dr. Chrestien, "the veteran of military surgery", at 90 years of age, is announced. He died at Lyons "full of honours and of years."

The Faculty of Medicine of Paris commence operations on the 17th instant, with the following programme:—Histology is professed by Robin; Medical Physics by Gavarret; Medical Pathology (medicine) by Guillot; Operations by Malgaigne; Medical Chemistry by Wurtz; Anatomy by Jarjavay; Pathology, etc., by Chauffard, in place of Andral; Surgical Pathology (surgery) by Denonvilliers; Clinical Medicine by Bouillaud, Piorry, Rostan, and Trousseau; Clinical Surgery by Jobert, Langier, Velpeau, and Nélaton; and Midwifery by Depaul. Supplementary clinical courses will be given on Diseases of Children by Roger; on Mental Diseases by Lasègue; and on Ophthalmology by Follin.

M. Zepuder of Vienna pretends that he can tell the sex of the fœtus by counting the number of the cardiac pulsations, which in boys are 120 to 122, and in girls 144 to 150, per minute. He says that he was wrong only five times out of sixty.

Syphilis (writes a foreign journalist) is the order of the day; it is the grand term of the moment, although doctors cry out in all directions that they have a specific for it. This is the only disease which kills, according to them; gout, rheumatism, and scrofula, are trivial affairs. "If a man has had syphilis fifteen years ago, and followed a proper treatment, and if no accident have since appeared, I ought to forbid his marrying; if he have a child, I ought to prevent its being suckled by a nurse, for fear of being punished by the law."

"LEAVE OF ABSENCE."

[Communicated.]

THE loss to the Indian public and to the medical profession recorded in the obituary notice, in a recent number, of the late Dr. Webb of Calcutta, following as it does upon the premature termination of the career of so many meritorious and distinguished officers connected with our Indian empire, including a Governor-General, Lords Elphinstone and Clyde, and Sir James Outram, suggests to us some reflections as to whether those who have suffered from the effects of a tropical climate, generally take the course most suitable to reason and common sense, to promote their restoration to health, or their chances of attaining a prolongation of life and comfort.

It seems to be the usual custom for those who have been only slightly affected by the Indian climate, to be allowed leave for a short period, to reside in some hill station, or to take a sea-voyage; but that those whose constitutions have become seriously affected by long continued functional or organic disease, are recommended to proceed to Europe. A long sea-voyage, such as that from India round the Cape of Good Hope, which takes about two months in a steamer, or by a sailing vessel something approaching four months, may be the most beneficial remedy in many cases, where there is no suspicion of organic disease. Many persons enjoy a life at sea, and would be willing that the voyage should be prolonged as much as possible; to others, the confinement and monotony of life even in one of Green's or Wigram's best ships are irksome, and are not even compensated by the prospect of revisiting one's home and country, seeing the exhibitions of civilised power, etc.: in fact, of attaining the enjoyments which a highly cultivated mind, on return from exile, may reasonably anticipate. We think that this plan, however, is the best to be adopted by those who are somewhat advanced in middle life, and who have become only climate-worn from long Indian residence, particularly if they have the prospect of retiring from the service and remaining at home. With the young, however, and those seniors who are not only climate-stricken, but seem to be suffering from organic disease, we think other plans are preferable. The young may with advantage try the short route to Europe. It will do him the most good in every way, to get home as soon as possible, to revisit his home and friends, renew old associations, and to see every thing, etc. The excitement of this, with the view of the most interesting scenery in the world, sporting, geological, or other explorations of a scientific character, will renew his health

and vigour more or less rapidly. The only drawback would be, the too short time allowed for his absence from India, and Indian exhausting work. Formerly, almost every official returning to Europe on ordinary or on sick furlough, took three years' leave of absence; but since the issue of the new Furlough Regulations and of the rules respecting the retention of staff appointments, a few months probably is all the time the invalid can spend at home, *i.e.*, in Europe. We are inclined to think that two years at home (this not to include the voyage to and fro), are not more than sufficient to give the climate-stricken young man the best chance (and it will be a very good one), of weathering the tropical influences attending his subsequent Indian career. The short allowance of time for those who hold staff appointments, within which they must be back, in order that they may not be deprived of them, is a serious evil. The system tends to depress the earnest, hard-working man, who has expended his energies in an exhausting climate, first of all, in qualifying himself by study for staff employ, and subsequently, in assisting with all his might, to keep the great Indian machine in harmonious action. It is these men who, with suitable time allowed them for refreshing their minds and bodies, will find means to improve themselves in such a way, that their services on their return, will become doubly valuable to the State. With the seniors, who have become affected by the climate, the case is different. Whether governors, statesmen, judges, engineers, or doctors, all going out comparatively late in life, they have, on arrival, gone through an *acclimatising* process. Their faculties, bodily and mental, have always been kept on the stretch; often has depression been induced by their surrounding influences. If to all this be added a severe dysentery, or attack of cholera, or series of agues, or an enlarged liver, we think that no plan can be more unsuitable than to make the weakened, and probably altered constitution undertake another attempt at acclimatisation, in the colder regions of the earth. The difficulties and dangers of this trial have been so well exhibited in the pages of Sir Ranald Martin, in his *Observations* on the diseases of those returned from tropical climates, and in the practice of those amongst us who are in the habit of treating such cases, that it seems unnecessary to dilate upon them. For these cases, we do not think even a long sea-passage of fifteen thousand miles is the best way of commencing the cure. A residence in the often cold and damp hill sanatoria of India, where a difference of altitude only is the chief recommendation, is quite out of the question; but we are of opinion that, the desideratum is to obtain change of air by a sea-voyage of moderate length, followed by residence in a climate approaching to the tropical, in point of warmth and dryness. These requisites may be secured by a voyage to, and residence at the Cape of Good Hope; but better still perhaps, if not at the present moment—yet we trust at no great interval of time—by visiting one of our Australian colonies. Of these, either Western Australia or Queensland, we believe, would give the "old" Indian invalid the best possible chance, as far, at least, as change of air and scene are concerned; but we constantly hear of Anglo-Indians of a mature age, who have been so far affected by the climate that their systems can hardly have escaped organic change, leaving their quiet, almost sedentary habits in India, to undergo the fatigues and privations of the Red Sea route, then to traverse the cold mountainous regions of Europe, or the miasma-laden shores of the Mediterranean, in fact, various seas and continents, with the prospect of commencing, in the ensuing winter, the second great acclimatising experiment of their lives. We much fear that the neglect of reasonable precautions, such as we have indicated, may have led to some, at least, of the serious loss of valuable lives, which the public service has lately sustained. The subject is so important, that we may probably recur to it on a future occasion.

Special Correspondence.

EDINBURGH.

[FROM OUR OWN CORRESPONDENT.]

THE quadrangle of our University is again thronged with busy students; and the steady stream of young men passing down Infirmary Street as twelve o'clock strikes, tells us that the Session has fairly commenced.

As has always been the custom in our University, the Session was opened by an Introductory Address by the Principal, Sir David Brewster. Those of our readers who have been students in Edinburgh, will remember how stormy and clamorous these annual meetings have always been. The students of the Junior Humanity Class, just emancipated from the thralldom of school discipline, vie with the many schoolboys who join them on the occasion, in the ardour for throwing peas, and making unearthly noises; and no one can remember an Introductory Address which was not interrupted by such unseemly conduct. Supposing that the disturbances had been, in former years, in no small measure due to the insufficient accommodation afforded by the very spacious Chemistry Class room, in which the addresses had been delivered, the Senatus determined this year to remedy matters by choosing the Music Hall as the place for the ceremony. Their anticipations as to the success of the experiment were, however, doomed to be disappointed, as Sir David Brewster was interrupted frequently during the course of his most eloquent address, which he had, owing to the disturbance, to bring to a premature close.

If I have mentioned these disturbances, it has been for the purpose of vindicating the medical students of our University from the charge which has been brought against them, of taking an active part in them. They are, as the most superficial observer may easily satisfy himself, due entirely to the junior students of the literary classes, who, coming to the University at an age when they would in England be more profitably engaged in the lower forms of a grammar school, carry to it the boyish and unmanly conduct more fitted to the playground.

Sir David Brewster addressed his audience on the former benefactors of the University of Edinburgh. The universal opinion seems to be, at present, that the time has come for offering, in our Northern universities, a greater premium on talent and industry than has hitherto been the custom; and Sir David Brewster's lecture was evidently a hint thrown out to testators, that their money could not be left for a better purpose than the foundation of a scholarship, or the endowment of a new chair.

In the course of his address, Sir David alluded to a subject which has of late attracted much attention. He mentioned that "next in importance to the endowment of new chairs and scholarships, is the establishment of a College Hall, where students can be boarded and lodged, with increased facilities for pursuing their studies, under judicious superintendence and control." There is considerable difference of opinion on this point amongst the professors. Some, who advocate it strongly, have formed themselves into a committee for effecting their

purpose, and have so far succeeded that an establishment, such as they desire, will probably be opened in Edinburgh at the commencement of next Session.

The Extra-Academical School was opened at Surgeons' Hall by an address delivered by Dr. Warburton Begbie, who chose as the subject of his discourse "The Requirements for the Proper Study of Medicine". Those of our readers who have been students in Edinburgh within the last few years, will call to mind how large a share of esteem and popularity Dr. Begbie enjoys, and will not feel astonished that he lectured to a very numerous and attentive audience.

An enthusiast in the study of the history of medicine, it is not to be wondered at that Dr. Begbie should have chosen as a text for his discourse, the passage from one of the Hippocratic writings, the *NOMOS*, in which the requirements for the successful study of our profession are so admirably summed up. "*Χρὴ γὰρ ὅστις μέλλει ἱητρικῆς ξύνεσιν ατρεκέως ἀρμολογεῖσθαι τῷδε μιν ἐπιβολὸν γενέσθαι· φύσις· διδασκαλίης· παιδομαθίης· φιλοπονήης· χρόνου· τόπου εὐφύους.*"

The lecturer insisted upon the necessity for natural taste and ability for the study of medicine, and warned those who lacked either to be careful before attempting to pursue it. In the course of his remarks, Dr. Begbie said, "In the practice of medicine there must be *φύσις*. Without the natural disposition, with the fruits it yields, what is there either to stimulate or to encourage? Ours, assuredly, is not a calling which the man ambitious of acquiring wealth, or even great worldly distinction, should embrace; the honours and rewards medicine holds out are not such as usually offer any attractions towards it. Nevertheless, it may without hesitation be affirmed, that the profession of medicine, properly discharged, affords as much real happiness to its cultivators as any other; it being always held in remembrance that the enjoyment of such happiness is only consistent with the being personally deserving of it; '*Est demum vera felicitas, felicitate dignum videri*'." Glancing next at those conditions which may be considered favourable to the acquirement of medical knowledge, Dr. Begbie pointed out how in every sense the Edinburgh Medical School, comprehending in this term both the University and Extra-Academical School, might be considered as "*τόπου εὐφύους*". He expressed his belief in the advisability of commencing early the study of medicine, and advised his hearers to frequent the hospitals, from the very commencement of their curriculum, "in the observation of patients at the first, perhaps more than in the observation of diseases."

The lecturer next insisted strongly on the advantages of a liberal preliminary education, and advised his hearers not to consider that there existed any incongruity between a study of chemistry and anatomy and a taste for classical literature. After commenting at length on some of the other clauses in the passage which we have quoted, he referred to some of the illustrious men who first added to the glory of medicine, and concluded in these words: "Yes, gentlemen, by the founders of our noble profession its true aims and legitimate objects were clearly recognised, and have been distinctly set forth. Should not their opinion and conduct exercise a salutary influence on us their descend-

ants? We have, indeed, every incentive of this kind to the earnest and honourable discharge of our responsible duties. If you consult the roll of that body of distinguished men in the profession, of which we have so much reason to be proud—I mean the Royal College of Physicians of London, from the period of its foundation by Henry the Eighth in 1518, at the instance of the illustrious Thomas Linacre, down to this day, when Dr. Thomas Watson fills so worthily the chair—you will, I am sure, be forcibly struck by observing how very frequently scholarly attainments, extended professional knowledge, and true nobility of character have blended in the persons of England's foremost physicians."

Having noticed at considerable length the general introductory lectures delivered at the College of Surgeons and University, we cannot attempt to give a sketch of all the address delivered by the several professors in their class-rooms. We shall confine our notices to Professor Syme's introductory lecture, and to those of the new lecturers in the Extra-Academical School. Old Edinburgh men will remember how pithy and meaning have been the sentences with which our distinguished professor of clinical surgery has usually commenced his sessional course of lectures. Essentially a man of few words, Mr. Syme scarcely ever extended these remarks beyond a few sentences, preferring at once to illustrate the object of his course by a display of the ordinary work with which it had to deal. This year, however, he has thought fit to be more lengthy in his introductory address; and I am sure all our readers will be interested by a short summary of his remarks.

Reviewing the different branches of study comprehended in the present medical curriculum, he stated his opinion that these were perhaps too numerous. He insisted strongly on the study of anatomy, as the science which forms the groundwork of all the knowledge which a student must acquire. Anatomy can only, Mr. Syme remarked, be learned by dissection. Not only must the relation of parts be seen, but felt; for upon such knowledge the surgeon is often almost entirely dependent; many operations being practised upon parts which can only be felt, not seen. A knowledge of physiology he considered as essential as of anatomy. In this science, as in anatomy, it is now too much the fashion, Mr. Syme said, to direct the student's attention to the microscope. The object of physiological study ought to be, not so much how organs work, as what they do; *e.g.*, we ought to study not so much the mode in which the muscular fibres work, as the action which the muscle exerts. Mr. Syme stated he did not wish, as some had represented, to run down the microscope, which he thought a most useful and interesting instrument; but he was certainly of opinion that it should be studied in spare movements, and after the termination of student life; while the sciences which it was often made to supersede could only be thoroughly acquired during its progress. Mr. Syme expressed his conviction that students ought to attend the hospital from the very commencement of their studies; for many things at first not thoroughly understood will afterwards prove of the greatest value.

He then adverted to the method of clinical instruction which he had so long carried out, and remarked that by

it alone could the thorough discussion of a case be rendered beneficial to a large number of students. Mr. Syme's admirable clinical lectures we hope in a future communication fully to explain.

Mr. Syme then urged upon his hearers that seeing an operation would prove of very little use to them, if they were not thoroughly acquainted with the case to be operated upon. The wish to see merely operations, he remarked, was dictated by the same feelings which led men to go and see an execution.

Mr. Syme then pointed out the essentials for a good surgeon. A good surgeon ought—1. To be able to recognise disease accurately, for without this knowledge no treatment could be with certainty adopted; 2. To know what to do; 3. To know how to do it. This demanded a certain amount of manual dexterity, which all can by practice and perseverance acquire. He insisted that facility in operating upon the living body did not so much depend upon having practised operations upon the dead subject, as upon having cultivated with zeal and earnestness the study of practical anatomy.

With the opening of the session there is generally the *début* of some new lecturers in the Extra-Academical School, and this session has proved no exception to the rule.

Dr. Handyside, formerly a very successful teacher of anatomy, after an interval of many years has resumed his lectures; and his first lecture was attended by many of his old pupils and colleagues.

Dr. Grainger Stewart, pathologist to the Infirmary, has also commenced lecturing on general pathology.

Dr. Joseph Bell, lately a most popular demonstrator of anatomy in the University, has commenced lecturing on surgery; whilst Dr. Crum Browne, a most distinguished graduate of our own and the London University, has opened a course of lectures on chemistry.

In conclusion, we are glad to be able to state that a session never opened more prosperously than the present one. The number of medical students who had, on the evening of November 9th, matriculated in the University, was 353, being several in advance of the same period last year.

THE AFRICAN COAST. Assistant-surgeons are not readily found to serve in the regiments on the Gold Coast; and no wonder. The temptations in many ways are great; but the danger to life of the service seems to be still greater, for, in truth, the supply is at present short. Sierra Leone, the Gambia, and the Gold Coast are the dangerous districts. The regiments serving there are West India regiments and the Gold Coast Artillery Corps. Only volunteers, who are not required to go through the Army Medical School, are sent out there; but they are under the orders of the Director-General. Each year of service there counts as two years for promotion and retirement; and for each year's service a year's leave of absence is granted—pay being continued. The senior assistant-surgeon is entitled to his surgeoncy when a vacancy occurs. The surgeon, again, who has served longest on the Coast is entitled to surgeoncy of either of the four West India regiments when a vacancy presents. Any assistant-surgeon or surgeon who has served three full years on the Coast (which count for six years) may be transferred to the general service of the Army Medical Department.

Association Intelligence.

EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting will be held at the Fountain Hotel, Canterbury, on Thursday, November 26th, at 3 p.m.

Dinner will be ordered for 5 o'clock.

THOMAS BOXCOTT, M.D., *Hon. Secretary.*

Canterbury, November 2nd, 1863.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE second meeting for the Seventh Session (1863-4) was held at the Town Hall, Maidstone, on October 30th; JOHN ARMSTRONG, M.D., President of the Branch, in the Chair. There were present sixteen members and visitors.

New Member. Dr. Charles Henry Allfrey, of Chislehurst, was admitted a member of the district. He was elected a member of the Association and of the Branch, at the annual meeting of the Branch in June.

The Discussion of Dr. F. J. Brown's Paper, on the Intermittent of Still-born Children (adjourned from the last meeting), was resumed. The following points were discussed.

1. Age at which a foetus is regarded as a dead body, and subject to the laws relative to interment. It appears that in England foetuses are distinguished into "mature" and "immature"; but that there is no law that enjoins the burial of a foetus that is still-born, whether it be mature or immature. In Prussia a foetus of one hundred and eighty days, viz. six calendar months, is considered to be a dead body in the Rhenish provinces; and one of two hundred and ten days, viz. seven calendar months, in the rest of the monarchy. The Roman law recognised the viability of a foetus at the age of one hundred and eighty-two days. Whether interment was regulated by the division of foetuses into viable and non-viable does not appear.

2. Mode of disposing of foetuses of three months and under. This was stated to be by burning, by burying in gardens, by throwing into latrines and sewers, etc.

3. Mode of disposing of foetuses of four months and upwards. This was stated to be by burial by the sexton in the first grave that might be dug in the cemetery.

4. Mode of burial of full-grown children, whether in other persons' graves or in separate graves. The custom appears to be to avoid the expense of a separate grave in the case of unbaptised children dying shortly after birth. It is not known how far this custom extends, whether to children under one month of age, or even still further.

5. Certifying the birth of a still-born foetus of four months and upwards; the certificate being given to the friends for delivery to the sexton. This was stated to be customary on the part of surgeons and midwives.

6. Registration of immature live born foetuses. This was stated to be unusual. The law of England requires registrars to enter as live-births every case in which breathing or movement occurs, however slightly, after the complete extrusion of the foetus from the maternal passages. This is witnessed sometimes at the fifth month. The law is clear as regards the duty of the registrar, but does not compel the parents to effect the registration. This law has no reference to viability, that is, to the power of maintaining life.

7. Registration of live-born mature foetuses; (a) of those that die within one hour; and (b) of those that die within twenty-four hours. It was stated that cases occurring in the first subdivision were commonly treated

as still-births, although improperly. Cases in the second subdivision were often similarly treated by the friends, although the medical attendant usually gives a certificate for the registrar.

At the conclusion of the discussion, it was the general impression that the subject requires consideration, and regulation by legislative enactments.

Communications. The following cases and papers were read.

1. Median Lithotomy in a Man aged 65, for the Removal of a Piece of Metal Catheter: Recovery. By F. Fry, Esq.

2. Lateral Lithotomy in a Child 22 months old: Contemplated Operation for a Recurrence of Stone, two years subsequently, rendered unnecessary by the Escape of the Calculus *per Urethram*. By F. Fry, Esq.

- 3 and 4. Median or Allarton's Operation of Lithotomy in a Boy aged two years and seven months: Death by Peritonitis. Ditto in a Boy aged three years and seven months: Recovery. By F. J. Brown, M.D.

5. On Puerperal Mania. By S. Monckton, M.D. The author distinguished four species:—(a) Phrenitis; (b) Insanity; (c) Delirium tremens; (d) Nervous exhaustion.

6. Case of Abdominal Abscess that discharged itself by the Rectum, together with Escape of Flatus *per Urethram*. By S. Monckton, M.D.

After the usual thanks, the members and visitors adjourned to dinner, which was served at the Mitre Inn.

Reports of Societies.

HARVEIAN SOCIETY OF LONDON.

NOVEMBER 5TH, 1863.

J. B. SANDERSON, M.D., Vice-President, in the Chair.

Premature Labour in Albuminuria. Dr. CLEVELAND made some remarks upon the period at which premature labour ought to be induced in cases of albuminuria.

Ascites and Ovarian Disease. Dr. DRYSDALE mentioned a case where the diagnosis of ascites and ovarian disease seemed to him to be doubtful.

SOME OF THE DISEASES CONSTITUTING THE CONDITION COMMONLY CALLED AMAUROSIS. BY ERNEST HART, ESQ.

Mr. HART said that amaurosis was not one, but many diseases; and that by the ophthalmoscope it was possible to distinguish in their early stage those deep-seated alterations in the tunics, nerves, humours, and vessels of the eye which, without it, could only be guessed at, but which constituted the variety of diseases leading to blindness, without change in the external appearance of the eye, called amaurosis. Upon their diagnosis and treatment in their early stage rested the possibility of saving the patient's sight. If they were so recognised, sight could now in the majority of cases be saved; if they were not, sooner or later it was lost. The subject was so wide, that he proposed only to describe one or two of the most common conditions, selecting those which most frequently occurred in general practice, and were most likely to be overlooked. Mr. Hart then showed the appearances presented under the ophthalmoscope by the first streaks of cataract; he said the chapters in ophthalmology which dwelt on the difficulties of distinction between cataract and amaurosis might now be cancelled; for, with the ophthalmoscope, the diagnosis might be made absolute. He then proceeded to the distinctions between "muscae", or black spots before the sight, arising from organic destruction of the vitreous, and those which were indications of functional disorder. Both were very much under the influence of treatment (the former being often of syphilitic origin); but the

treatment appropriate to the one was highly inappropriate in the other. He then passed to a serious class of cases of defective vision, of which the early premonitory symptom was fast increasing shortness of sight, especially during early life. To this was often added uneasiness of the eye, perhaps slight lachrymation and fatigue of the vision after slight exertion. These were the first outward signs of congestive inflammation of the choroid, productive of posterior sclero-choroiditis, with staphyloma or pouching of the tunics of the eye around the optic nerve-entrance. The use of ordinary myopic glasses, while it alleviated the inconvenience, aggravated the progress of the disease. It was one of incredible frequency. If arrested, its worst consequence was considerable short-sightedness; but it frequently progressed, and, leading to atrophy of the yellow spot, detachment of the retina, ocular apoplexy, vitreous opacity, and fluidification, and sometimes to (complicated) cataract and glaucoma, it was a fertile source of the inveterate amauroses of advanced life. In every case of advancing short-sight, the fundus of the eye should be inspected as a matter of course, and in simple justice to the patient and practitioner. For there were two kinds of short-sightedness: in the one, glasses were beneficial; in the other, they were injurious. Only the ophthalmoscope could decide; and, if a guess were made, it was two to one that it would be wrong. Mr. Hart detailed the means which he found most useful in arresting this form of disease, and gave notes of cases. He then referred to an insidious form of amaurosis, of which the characteristic ophthalmoscopic sign was pigmentation of the retina, the retina looking like a leopard-skin. Of this he demonstrated, ophthalmoscopically, a beautifully marked case, where the disease had been progressing unsuspected for eighteen years, and sight was nearly extinguished. The earliest outward sign was dimness of vision at night (*hemeralopia*). The appearance of the eye remained unaltered, and the progress of the disease was painless. Mr. Hart then demonstrated examples of the various forms of disease of which he had been speaking, by the aid of a fixed ophthalmoscope which he used in hospital teaching; by its means those present were able to see and appreciate the changes which were taking place at the back of eyes otherwise apparently healthy-looking.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, Nov. 6th, 1863.

PRESCOTT G. HEWETT, Esq., Vice-President, in the Chair.

Extroversion of the Bladder. Mr. TIMOTHY HOLMES exhibited a boy, aged 8 years, with congenital extroversion of the bladder, for covering which he had performed two plastic operations. The first operation consisted of placing over the exposed vesical membrane a cover composed of two layers of integument, one taken from the groin, the other from the right scrotum, each flap in itself large enough to cover the cleft. The former flap had been folded down like a leaf of a book, with its thin surface towards the mucous membrane; the latter had been turned horizontally, with the skin-surface outwards over the inner flap. The edges were united by silver sutures. The upper edge of the united flaps had been implanted into the skin of the abdomen, so that only the lower edge of the cleft remained open. Notwithstanding the contact of the urine, the flaps united naturally; but the upper border failed to do so, so that urine escaped that way. The second operation was to remedy this; and the flaps were united by the harelip suture to the skin of the abdomen. This almost entirely succeeded, and a very little opening now exists. This Mr. Holmes proposes to close, and also to narrow the lower gap, so that an India-rubber bottle can be easily adjusted to catch the urine.

Drawings were exhibited of the case before and after operation; also of a case operated on by Professor Pancoast of Philadelphia.

Mr. Holmes referred to three other cases on which he had himself operated. One was an infant; the first operation succeeded, but the child died of fever in the country. One was a boy, 7 years of age; and one was a lad, 19 years of age, still under treatment. The flaps in these two cases were interfered with by phagedæna. The object of the operation is as much as possible to cover the mucous membrane, and arrange for catching the urine. The operation is most easy in infants, from the nature of the tissue, the smaller flaps at that age required, and the less likelihood of difficulty from the co-existence of hernia.

Clot in the Pulmonary Artery. Dr. CAHILL related two cases. The symptoms in both cases were much the same. One patient, a young lady, having some spinal disease, and subject to rheumatic affection of the joints, was seized with violent dyspnoea and some struggling before death. The clot was found filling up one division of the pulmonary artery. The other patient was a lady with many large and hard varicose veins of the lower extremities. She was seized with dyspnoea just like the preceding patient, and recovered; but has since then shown other symptoms of affected circulation.

The PRESIDENT mentioned a patient who had great temporary oedema from venous obstruction in all four limbs, one after the other.

Poisonous Symptoms from Cannabis Indica. The patient, a medical man, with some epigastric pain, for which he generally took morphia, had swallowed four grains of cannabis Indica. Mr. KEEN found him sitting up in horror at the idea of being touched or moved, suffering much anxiety, and with muscular power greatly in abeyance. The pulse was 92, steady, full, and soft; pupils natural. With stimuli and sinapisms, he soon recovered.

CENTENARIANS. In 1851 215 persons were returned as being above 100 years old, but only 201 persons in 1861—one in every 100,000. Of the last number, 146 were women, and but 55 men—nearly three women to one man. Only 26 had never been married. About a third were found living in large towns—21 in London, 11 in Liverpool, five in Manchester, one in Birmingham, four in Bristol, one in Leeds. As in 1851, so in 1861, these very aged persons were not found so often in the midland districts of the kingdom as in the north and the east, and most of all in the west. At the last census, Norfolk had among its 435,000 people 11 above 100 years old; Gloucestershire, with 485,000 people, had eight centenarians; and Somerset, with its 445,000, had nine. Wales, with its 1,112,000, had no less than 24, the same number as Lancashire with its 2,400,000 people, and more than London with its 2,800,000 inhabitants. So far as the occupations of these long-lived persons are given, the returns show a majority engaged in pursuits that caused them to be much in the open air. Three had been farmers, thirteen out-door farm servants, five labourers, three hawkers, three seamen, three soldiers; there was a fisherman, a quarrier, a waterworks man, a miller. But there was also a scrivener, four shoemakers, a baker, a grocer, a carpenter, a marine-store dealer, three persons occupied in cotton manufacture, two in woollen, one in silk, one in lace. Of the women the returns commonly state only whether the person is wife or widow, but we are told that there were six who had been domestic servants, two nurses, three charwomen, two washerwomen, and a gipsy. One centenarian was a member of the Household. Fourteen are described as land or house proprietors, or independent; nineteen were passing their last years in the workhouse. Six were blind.

Correspondence.

IRIDECTOMY.

LETTER FROM WILLIAM BOWMAN, ESQ., F.R.S.

SIR,—Anxious to do all I can to obtain for the practice of iridectomy in glaucoma an early and an universal acceptance, I beg to notice, as succinctly as I am able, some of the points contained in your leading article of last week.

1. You say that "some surgeons of the highest authority deem it an operation not only useless, but worse than useless." I reply; the only surgeon, not an oculist, whom I am aware of as having made himself publicly responsible for such an opinion, is Mr. Syme, whose letter I have already dealt with in your last two numbers. If you can refer to any other published opinions to a similar effect, I will endeavour to meet them fairly, and examine how much weight they may be entitled to. If you refer to opinions not published, I may assume them, until their authors give them more distinct expression, to rest on no stronger grounds than those put forward by the eminent Professor of Edinburgh.

2. You say, "we find others" ("oculists of the highest celebrity") "who, after having practised it and given it a trial, conclude it to be an inadmissible operation, and have determined never to resort to it again." I answer; no oculist that I know of has published any account of such adverse experience—at least, with the voucher of his name; and until this be done, I am at liberty to suppose, and from my own acquaintance with the subject I do believe, that any such trials, leading any one to the conclusion above recited, have been altogether inadequate, and undertaken without accurate discrimination of the conditions of disease present.

When the eminence of men is thus advanced as an argument to add weight to opinions opposed, as I believe, to scientific truth, and pernicious in proportion as they prevail in practice, I am surely justified in asking that the names of these gentlemen should be stated, and that they should be requested to report the cases on which they have based their conclusions, so that these opinions should be open to examination and criticism.

So far as my reading has extended, I have not met with a single such case containing the details necessary to establish the accuracy of the diagnosis. Our knowledge of glaucoma has been greatly elucidated and defined by those who have practised iridectomy, especially by its illustrious proposer, Von Graefe; and it is not unlikely that those who have disparaged the operation from the first, or who have lightly discarded it on a superficial trial, may have failed to study the most recent additions to our knowledge of the disease itself, and so prove no trustworthy guides on this subject, however great their reputation as oculists may be.

3. You say, "We also find specialists—eye-surgeons—of no mean understanding, who have never resorted to iridectomy, and who utterly condemn the operation—not blindly and out of mere stupid opposition; but on three grounds: 1. From what they can judge of the operation on general principles of surgery; 2. From what they have witnessed of the effects of the operation done by the hands of other oculists; and 3. Because they have a firm belief that many of the cases of defective vision which have been subjected to iridectomy would have recovered better had they been left to nature's own method of cure."

Answer. 1. The "general principles of surgery" is too vague a phrase to have any strict meaning when applied to an operation so peculiar as this one. Those who advocate iridectomy are probably as well versed in these principles as those who oppose it, and may be

even better able to estimate their bearing upon it, than oculists who have not practised the operation which they decried. 2. If any of these gentlemen will allow me to show him the effects of the operation, I promise to do so in a conclusive manner. 3. "Nature's own method" in glaucomatous disease is to destroy the sight. If, therefore, it be meant that glaucomatous disease submitted to iridectomy would have recovered better under "nature's own method," I join issue in the most pointed manner on the question of fact; if it be intended that other forms of disease have been mistaken for glaucoma, and been, therefore, treated by iridectomy, that would only imply ignorance or carelessness on the part of the operator, and would constitute no argument at all against the use of iridectomy. On the whole, I must say, that any oculist is pursuing a course perilous to his own reputation, however great, who, after six years of open proofs of the efficacy of iridectomy, continues to treat glaucoma by those purely "medical" means, which universal experience declares to be but temporising and inefficacious expedients. What can a surgeon who knows how these expedients have beguiled the practitioner into the loss of splendid opportunities say, when afterwards asked by the disconsolate patient, "Could my sight have been saved at an earlier period?" With the kindest wish to screen a professional brother, he can but evade the question by some such words as these, "I have no doubt all was done by those you consulted that seemed to them at the time to be best for you," or maintain a painful silence; *a priori* arguments are but poor opponents to facts.

4. You then say, "Iridectomy seems to occupy this remarkable position in the history of modern scientific surgery; viz., that the principles upon which it is founded are not capable of clear and simple definition, as they are in the case of other recognised surgical operations. Ask the surgeon why he cuts off a leg, ties an artery, or extracts a cataract; and he will give you a plain and ready answer, comprehensible to every mind. But it is not so with iridectomy. The morbid conditions which are said to demand the performance of the operation; the mode of action of the operation itself—that is to say, the theory of its beneficial mode of action—are still overshadowed with difficulties; at least, not one surgeon in fifty can give you any plain and satisfactory explanation of the thing." And I am informed that this supposed want of a *rationale* of its action has been a stumbling-block to many persons, who have doubted whether iridectomy could reduce tension, because they failed to see in what manner, or on what principle, it could do so. The fallacy of this reasoning is obvious. The fact is that glaucoma is a disease characterised by augmented tension of the eyeball, under which the retina suffers damage. Iridectomy has been observed to be a proceeding capable of lessening this tension, and thus of relieving the retina from pressure. It is, therefore, employed for that most rational object, until some other method of accomplishing it is discovered, equally efficacious, and otherwise in some way preferable. Far, indeed, be it from me to say that no such other and preferable method may not some day be hit upon. On the contrary, I should always hope for it and strive for it. But, meanwhile, it is indeed a folly to reject what will effect our purpose, because we cannot forsooth explain its *modus operandi*. No one can be said to have explained why it is that the tension augments in glaucoma. We should be very short-sighted if we imagined that there will remain no mysteries for investigation, in this as in a thousand other diseases, long after all who now pore into them are buried and forgotten. The essential processes of disease and the *modus operandi* of remedies are probably among the last problems which will test the zeal of future men of science; and it will be sufficient to argue against the value of iridectomy on the ground of the mystery of its mode of action, when ob-

servers shall have fully elucidated the intimate nature of the glaucomatous process.

5. "You understand me to say that it is the early stages of glaucoma to which alone iridectomy is especially applicable." A reference to my paper, published in this JOURNAL, October 11th, 1862, will correct this misapprehension. I may also add, that I have not alluded to its applicability in certain forms of recurrent iritis and irido-choroiditis, and in extraction of cataract, only because it was unadvisable to introduce complications into the present discussion.

6. I regard the operation of iridectomy as one which any surgeon able to operate for cataract can perform with safety, and it is, of course, now better understood than it was a few years ago. I have described it fully, as well as the general indications for it, in the paper referred to.

7. I thank you for having called attention to the subject of this letter, and am persuaded that much good will result from the step you have taken. I shall consider it a duty to endeavour to state ere long, in concise terms, what are the indications which should draw the attention of practitioners to the presence of glaucomatous disease. They will be found much simpler than is imagined.

I am, etc.,

W. BOWMAN.

5, Clifford Street, November 10th, 1863.

LETTER FROM J. C. WORDSWORTH, ESQ.

SIR,—May I again trespass on your space for a few more remarks on iridectomy, which I am induced to offer by the importunity of your correspondent, "A General Practitioner," who is not satisfied with my referring those who wish for further information on this subject to the writings of its great advocate and expositor, Von Graefe.

I have no wish to inflict on your indulgence a long dissertation on iridectomy, but simply to state—

1. In what iridectomy for the cure of glaucoma consists;

2. On what principle it acts in glaucoma;

3. Under what condition or conditions its employment is indicated.

1. The operation, as practised in *glaucoma*, differs from that for *artificial pupil* in the following essential particulars.

In the first place, the incision is made in the *sclerótica*, as far from the edge of the cornea as is practicable for the knife to pass in front of the iris. Then, in the second, a segment of the *entire* iris is removed—i.e., from the pupil to its attached border. The first step is necessary for the second. In performing iridectomy for other purposes, the *cornea* is incised, and only a partial division of the iris is made, except when a marginal pupil is required; for, independently of this being a safer operation, it is also more suitable to the purpose.

2. Iridectomy relieves glaucoma by permanently reducing the *tension* of the eyeball.

One of the most evident changes in the eye produced by glaucoma, if not one of the first, is the condition of undue *hardness*; the containing structures are over-distended. Vision is soon affected, in the same way as when the eyeball is pressed from without; and if the distension be reduced by evacuating some portion of the fluid contents, sight is at once improved. Now, iridectomy not only lessens the tension of the eyeball, and so effects the necessary proximate change, but it also has the advantage of producing a permanent result. How this is effected, may be a matter of investigation for years; the ultimate fact suffices for our purpose as practitioners. In the meantime, physiologists may well employ their minds in the endeavour to ascertain the *ultima ratio*. Medicine abounds much more in facts than in reasons, or, at any rate, satisfactory reasons.

3. Iridectomy is indicated in those conditions of the eye affecting sight, which are proximately dependent on over-distention.

There is no essential dependence between these and the condition of inflammation; but they may coexist. It is, therefore, of infinite importance that they should enter into all inquiries, when investigating the disturbances of vision; for in their earliest stages, they may very easily be overlooked; and the opportunity for employing iridectomy with the best effect is then lost; the visual field becomes very contracted from long-sustained pressure; the lens and other media diffusely opaque; and the last stage of glaucoma supervenes.

I believe that most of the misunderstanding in reference to this subject has arisen about a *name*. If iridectomy had been introduced as a means of relieving *tension* of the eyeball, instead of being styled *the* remedy for *glaucoma*, it would more readily have won its way into the good opinion of the profession at large. Glaucoma had long been so much associated with incurable blindness in the minds of most men, that when a remedy was propounded for its cure, it necessarily was received with incredulity on all sides; and this was further increased when it became known that excising a portion of the iris was the remedy of such pretensions.

It was argued that the proposed remedy could have no influence on a disease that, from time immemorial, had been recognised as a disorganisation of the eye, and, of course, justly. Thus prejudice and incredulity now withstand its progress, and iridectomy is condemned untried, because its supposed pretensions are absurd.

It is quite true, that neither iridectomy nor any other remedy can cure the disease commonly associated with the name of glaucoma; but had it been proposed as a means of treating undue tension of the eyeball, dissociated from the name glaucoma, the importance of the condition would then not have been commonly recognised, and, as now, the disease would have been allowed to run its wonted course unopposed, till iridectomy had ceased to be the cure.

Much as I regret the tone of this controversy, I believe that much good will come of it. I think the profession will rate at its proper value the evidence of those who condemn iridectomy untried, when it is remembered that many of the first ophthalmologists in this country and abroad speak with such unequivocal approval of its use; and that no one who can speak from *experience* has entered the lists against it in our JOURNAL.

At most, we have the vague innuendos of anonymous eye-surgeons, and the *inexperience* of an eminent, justly eminent, general surgeon against us; while, on the other hand, materials are daily accumulating that must ultimately convince all but the medical Tories.

And after all has been said *pro* and *con*, I have no doubt that iridectomy will take its true place among the resources of our art, and continue the recognised means of dealing with a diseased condition for which not even its opponents can recommend a trusted remedy to supplant it.

I now hope to take my leave of this controversy; and shall not regret the part that I have taken in it, if the attention of the medical public is thereby directed to an impartial consideration of the value of iridectomy as a remedy for the early conditions of glaucoma.

I am, etc.,

J. C. WORDSWORTH.

50, Queen Anne Street, Nov. 2, 1863.

LETTER FROM J. Z. LAURENCE, ESQ.

SIR,—On February 19th last, Mrs. P., aged 59, came up from Hereford, to consult me regarding an "inflammation" of the left eye, which had been in progress for three weeks. It had commenced with intense pain in the globe, gradual diminution of vision, general *malaise*, and depression of spirits and vomiting.

I found the globe quite hard, the pupil fixed and dilated, the cornea nearly devoid of sensibility, general scleritis, and conjunctivitis. Her vision (*with the affected eye*) was limited to the merest perception of light. The fundus oculi, owing to turbidity of the vitreous humour, gave only a red reflex with the ophthalmoscope. My diagnosis was "acute glaucoma." She visited me about 4 p.m.; and, notwithstanding the disadvantages attending the performance of so delicate an operation at night, I felt so impressed with the serious character and urgency of the case, that I determined to perform iridectomy forthwith. This I did, with the assistance of Dr. Duke and Dr. Eastlake, the same evening at 8 p.m. During the night, the right eye was attacked with a similar "inflammation" as the left had previously been.

When I visited her the next morning (the 20th), I found the globe hard, the pupil dilated, a very limited amount of vision, and intense pain in the right eyeball. She was in an extremely prostrate condition, and had vomited some thin, bilious fluid.

By the following day, her vision had, as previously in the left eye, become reduced to simple perception of light. I recommended instant iridectomy; but my patient refused to submit to this without first writing to her husband at Hereford.

On the 25th (five days after the attack), I performed iridectomy on the right eye.

March 6th. She read No. 10 of Giraud-Teulon's test-figures. Owing to the eyes not having yet recovered themselves, I did not prolong my examination of her visual powers.

May 23rd. At seventeen feet, with No. 12 convex-glass, she read with the right eye No. 22 test-type (Jäger); with the left eye No. 23. With No. 8 convexes, she read, at ten inches, with the right eye, No. 5; with the left eye, No. 13.

So striking a case as the above is self-eloquent; it needs no comment on my part.

On the general question of iridectomy in glaucoma, I cannot express my opinion better than by transcribing a few detached lines from my pamphlet on *The Progress of Ophthalmic Surgery* (pp. 11-12).

"We may discuss the effects of this operation, firstly, as pure matters of fact. From this aspect, my own opinion and experience is, that its influence on the restoration of vision is inversely proportional to the duration of the disease. In chronic glaucoma I have never seen it remarkably successful. Contrary to this observation, however, it is only right to add that Dr. Haffmann states (*op. cit.*, p. 173), in Donders's practice, an arrest, or even a diminution, of impending blindness has been noticed, not only in many cases of chronic glaucoma, but even in those of 'amaurosis with excavation' ('glaucoma simplex'), in which tension of the tunics was a prominent sign. Von Graefe himself says (*Arch. f. Ophthalm.*, viii, 2, p. 303) he can adduce numerous cases, which had been progressing from six months to three years, in which he has obtained the same results with a permanence, which he had the opportunity of testing for periods varying from one to three years. We may next discuss the *rationale* of the operation. In this point of view, iridectomy is singularly weak.... Whilst (nearly) every other operation, not only in ophthalmic, but in general surgery, has some tangible reason to exhibit for its performance, iridectomy stands (almost) alone in the utter insufficiency of the various far-fetched explanations that have from time to time been assigned for its assumed efficiency. I cannot help thinking the greater part of the benefit of the operation results from the largeness of the corneal incision, necessarily preliminary to the actual excision of the iris, and the consequent completeness of the relief to the intraocular tension thus implied; that a limited paracentesis corneae is as inferior to 'iridectomy' precisely in the same ratio as the temporary relief afforded

by the mere puncture of an abscess is to the permanent relief given by a free incision."

Trusting you will consider the extreme importance of the question at issue a sufficient apology for this intrusion on your columns. I am, etc.,

J. ZACHARIAH LAURENCE.

30, Devonshire Street, Portland Place, Nov. 8, 1863.

TREATMENT OF ASPHYXIA FROM DROWNING.

LETTER FROM J. C. S. JENNINGS, ESQ.

SIR,—In your leading article of October 3rd, in reference to the letter received by you from the National Life Boat Institution, on the subject of the treatment of the drowned, you call upon your readers, "who have had experience in cases of asphyxia, to render every help in their power to the Institution in coming at a correct conclusion on so important a matter."

First, then, let me remind you of the old adage, that one ounce of practice is worth a pound of theory; and clearly convinced as I am, that I have succeeded in fully establishing respiration and circulation by means of galvanism, I, for one, am astonished that the Committee of the Royal Medical and Chirurgical Society have not recognised this agent in their rules for the treatment of the drowned; as it is undeniable that galvanism, alternated with other stimulants, *i. e.* the cold dash, warmth, and frictions, will excite reflex action. Its value was demonstrated many years since by Mr. Erichsen. Its use is advocated by Mr. John Hepworth, in the *BRITISH MEDICAL JOURNAL*, July 20, 1861. I must also enter my protest against the last clause of Rule 3, which states that the patient should not be left in the hot bath longer than five or six minutes. In the case reported by me in the *ASSOCIATION MEDICAL JOURNAL*, April 22, 1853, it proved fatal in half of that period; therefore why use it at all, particularly when no directions are added as to the degree of temperature? Rather substitute a blanket wrung out of hot water, as suggested by Mr. John Hepworth, in the letter above referred to, at the very time when I brought the subject before the Annual Meeting of the Association at Canterbury, together with the results of experiments on animals. The hot blanket would not be attended with danger in the hands of the people, or prevent the skin from exercising its necessary functions.

Dr. J. Toogood quite coincides with my views, in the *BRITISH MEDICAL JOURNAL* of September 28, 1861.

I am, etc., J. C. S. JENNINGS.

Abbey House, Malmesbury, Oct. 26, 1863.

FOREIGN BODY IN THE RECTUM.

LETTER FROM WILLIAM SOPER, ESQ.

SIR,—I venture to bring before your notice a case that may be interesting to some of your readers.

On Monday evening, October 26th, I was called to a gentleman, who stated that he was suffering from the most exquisite pain at the lower part of the bowel; and that, on attempting to pass a motion, it became intensified in a high degree. He stated that on the previous day he had taken an unusually long walk; and he thought that might be the cause of his pain. He said that his digestion was habitually imperfect; and that at times he suffered from constipation. There was no history of hæmorrhoids, fistula, nor fissured anus; in fact, he never in his life complained of any pain in the anal region previously to this. I proposed an examination; and, on introducing my finger into the anus, I detected, about two inches and a half above the orifice, a foreign body firmly fixed transversely to the rectum. I passed up on my finger a pair of dressing forceps, and succeeded in seizing the body, which was nearly an inch and a half

in length, in the centre; and, by a little manipulation, extracted what proved to be a fish-bone, being a portion of the cod fish which had been partaken of on the previous Saturday. Some little hæmorrhage followed. There was an almost immediate relief to his symptoms; and he is now doing well.

I am, etc.,
WM. SOPER.

1, St. George's Villas, Stockwell Road, Oct. 30, 1863.

Medical News.

UNIVERSITY OF OXFORD. Degree of Doctor of Medicine conferred, November 5th.

Andrew, James, Wadham College

APOTHECARIES' HALL. On November 5th, the following Licentiates were admitted:—

Beddard, James, Edgbaston, Birmingham
Fox, Cornelius Benjamin, Truro
Gill, William, Truro
Joynson, George Thomas, Northwich, Cheshire
Kemp, George, Eyre Street, Sheffield
Norton, William Augustus, Kensington Park Gardens
Peatfield, Thomas John, Edwinstowe, Notts

At the same Court, the following passed the first examination:—

Fyson, Ernest East, Guy's Hospital
Hawkins, Edmund Woods, London Hospital
Heygate, William Nicholas, St. Thomas's Hospital
Rendle, George, Guy's Hospital
Siddall, Joseph Bower, St. Thomas's Hospital

APPOINTMENTS.

*BALCHIN, R., Esq., elected Mayor of Godalming for the ensuing year.
BRIDSON, John, M.D., elected Surgeon to the Isle of Man General Hospital and Dispensary, in the room of the late H. N. Scarff, Esq.
DICKWORTH, Dyce, M.D., has been appointed Resident Physician to the Clinical Wards of Royal Infirmary, Edinburgh.
FEARNEY, George, M.D., elected Mayor of Dewsbury.
HOLDSWORTH, S., M.D., elected Mayor of Wakefield.
MILLER, W. W., M.D., elected Mayor of Eye.
*PARKER, Edward, Esq., appointed North Divisional Surgeon to the Police Force, Liverpool, in the room of the late *H. Swift, Esq.
*RODEN, William, M.D., elected Mayor of Kidderminster.
TRURAN, T., Esq., elected Mayor of Truro.

UNIVERSITY OF OXFORD.

BRODIE, Sir B. C., Bart., F.R.S.
MONRO, H., M.D.
OGLE, John W., M.D.
ROLLESTON, G., M.D.
SMITH, H. J. S., Esq.

appointed Examiners for the degree of Bachelor of Medicine.

POOR-LAW MEDICAL SERVICE.

BOURNES, W. H., M.D., to the Ballycastle Dispensary District of the Killala Union, co. Mayo.
GRIFFIN, Hugh, M.D., to the Bangor Dispensary District of the Rathfriland Union, co. Mayo.
KING, Robert, Esq., to the District of West Drayton and part of Hillingdon of the Uxbridge Union.
MACINTOSH, Matthew, Esq., to the Rotherfield District of the Uckfield Union, Sussex.
PENCIVIL, William, Esq., to the All Saints' and the St. Andrew's Districts of the Northampton Union.
RUST, James, M.D., to the Borrowby District of the Northallerton Union.
WILSON, John, L.R.C.P. Edin., to the Danby District of the Guisborough Union, Yorkshire.

VOLUNTEERS. (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

CHRISTIE, J., M.D., to be Surgeon 1st Monmouthshire A.V.

To be Honorary Assistant-Surgeons:—

BRENTON, W. R., Esq., 1st Surrey R.V.
HASTINGS, H., Esq., 15th Norfolk R.V.

BIRTH.

LATHAM. On November 7th, at Cambridge, the wife of *P. W. Latham, M.A., M.B., Physician to Addenbrooke's Hospital, of a son.

DEATHS.

BROWNE. On September 20th, on board H.M.S. *Himalaya*, aged 3 months, Emilie Ethel, daughter of R. Browne, Esq., Surgeon 2nd Battalion 25th Regiment.
BULLOCK. On November 9th, at Isleworth, aged 10 months, Albert E. A., youngest child of Henry Bullock, Esq.
*CAMPLIN, John M., M.D., of Islington, aged 73, on November 3.
COLLEDGE. On October 7th, at Bilaspore, North Western Provinces, India, aged 29, George Welstead, eldest son of *Thomas R. Colledge, M.D., of Cheltenham.
ELLIS. On November 10th, at Crowle, Lincolnshire, aged 4 years and 8 months, Robert Henry Phineas, eldest son of *Henry W. J. Ellis, L.R.C.P. Ed.
*SCANNELL, Daniel, Esq., at 22, Chapel Street, Belgrave Square, on November 1.
THOMPSON. On November 7th, at Biggleswade, aged 52, Ann, wife of John Thompson, Esq., Surgeon.
WALLEN. On November 2nd, at Rotherhithe, Hannah Maria, wife of W. S. Wallen, Esq., Surgeon.

THE GRESHAM LECTURES. Dr. H. H. Southey this year delivers the Gresham Lectures on Physic.

NEW HOSPITAL AT POONA. Sir Bartle Frere laid the foundation-stone of the Sassoon General Hospital at Poona on September 8th.

DR. FINIZIO, who has been lately tried in Italy on the charge of producing criminal abortion, has been pronounced innocent of the charge.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY. Mr. Thomas Appleby Stephenson has been elected President of this Society.

UNIVERSITY OF LONDON. The practical medical examinations of candidates for degrees in medicine at the University of London are to be this year conducted at St. Mary's Hospital, by Dr. Sibson and Dr. Parkes.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH. Benjamin Bell, Esq., has been elected President; John Gairdner, M.D., Treasurer; Archibald Inglis, M.D., Librarian; and James Simson, M.D., Secretary, of this College.

A SENSIBLE ACT. The Vestry of St. George's Southwark have shown their sense by increasing the salary of their medical officer of health to £150 a year. It will be found a good investment.

THE BOMBARDMENT OF KAGOSIMA. The *London Gazette* of last Tuesday contains a notification of the promotion of Mr. C. R. Godfrey, Assistant-Surgeon R.N., to the rank of Surgeon, "in consideration of the successful operations against the batteries of Kagosima."

SUNDERLAND MEDICAL SOCIETY. Mr. George B. Morgan has been elected President of this Society for the ensuing year; Dr. Henry J. Yeld has been elected Secretary and Treasurer; and Mr. Edward Allan Maling has been re-elected Librarian.

MEDICINE IN PETTICOATS. A person, calling herself "Mrs. Major Gage, surgeon, U.S.V.," has been representing herself to surgeons in charge of hospitals in the North, as holding the President's commission as such, and demanding quarters, fuel, etc. It is needless to say that no such person is known or recognised by the Medical Department. (*American Med. Times.*)

UNIVERSITY COLLEGE, LONDON. The Council held their first Session of the academical year 1863-4 on Saturday. A cheque for £3000, a gift to the College by Messrs. Cama and Co., was presented by Sir Edward Ryan. A vote of thanks was unanimously given to Messrs. Cama for their generous donation, and a further vote of thanks was passed to the same gentlemen for their recent donation of £1,000 to the hospital. A vote of thanks was passed for the generous contribution sent on August 14th, of £500 for the hospital by an anonymous benefactress. The Filliter Exhibition of £30, for proficiency in Pathological Anatomy (Examiners, Dr. Sharpey and Dr. Wilson Fox, with Professor Hare, M.D.) was awarded to Mr. Alexander Bruce. The Longridge prize of £40, for general proficiency in medicine and surgery, was also conferred on Mr. Alexander Bruce.

LADY DOCTORS ON HORSEBACK. Miss Doctor Harriet N. Austin, of New York, has come out in favour of ladies riding on horseback astride. The present style of riding, she says, is unsafe, ungraceful, unhealthy, and unnatural. Dr. James C. Jackson, in his work on consumption, takes the same view. He says that the present style in which ladies ride, when long continued, is productive of numerous diseases; but thinks that, if women could have dresses fitted for the purpose, and would ride astride as men do, horseback riding might be used not only as a means of occasional relief from the monotony of life, but it might be elevated into a national characteristic. (*American Paper.*)

ACTION BY A MEDICAL MAN FOR ALLEGED ILLEGAL ARREST. The Court of Queen's Bench of Ireland has been engaged in hearing arguments on an application for criminal informations against Mr. Hunt, a magistrate for Antrim, at the suit of Dr. Thomas Courtney. The case arose out of the death, in last January, of Amelia Carey, under peculiar and melancholy circumstances, which were the subject of protracted magisterial investigation. Her death was supposed to have been caused by an irritant mineral poison, which Dr. Courtney, who attended her in her last illness, was suspected of having administered. Her body was exhumed soon after interment, and the contents of the stomach were analysed by eminent chemists, but no trace of poison was detected, and the coroner's jury returned an open verdict. Mr. Hunt, however, professing to act under instructions from the Castle, caused Dr. Courtney to be arrested and held to bail, and instituted an inquiry, which, after proceeding for several weeks, was at last quashed by order of Government. The allegations against Mr. Hunt were that Dr. Courtney was not, at the initiation of the proceedings, informed of the nature of the charge against him, that the investigation was unfairly conducted, and that at its close Mr. Hunt maliciously and corruptly caused the charge of being accessory before the fact to Miss Carey's death to be placed against Dr. Courtney on the books of the Ballymena Petty Sessions Court. The Judges have not yet pronounced their decision.

SOCIAL SCIENCE ASSOCIATION. At a local committee at Edinburgh, Professor Archer read a report, which refers to the gratifying way in which the people of Edinburgh had sustained their reputation for hospitality, etc. It stated that the working men's meeting was a feature of special interest, no fewer than 34,960 applications having been received for admission, of which only about 3,600 could be gratified; and the order of the meeting, and the deep interest taken in the proceedings, were such as to excite the admiration of all. Great success had attended the excursions. Mr. Curror, city treasurer, read the financial report, which stated that the revenue of the general fund from the sale of tickets was £1,747 14s., and the disbursements £208; leaving a balance of £1,539. The local subscription fund amounted to £905, and the disbursements to £802; leaving a balance of £103. It was proposed to transmit immediately the sum of £1,500 to the Association in London.

HYDROPHOBIA. A young man was lately admitted at the Royal Infirmary, Liverpool, labouring under unusual symptoms. He could swallow no solid of any kind. The doctor in attendance directed a glass of water to be given to him. The man evinced no fear of it, but endeavoured to swallow it. He managed to get the water to his mouth, and also to swallow it, to a certain extent. Then violent spasms of the muscles of the neck set in, and he ejected the water and also some froth and saliva, violently shaking his head at the same time, and apparently choking. This occurred every time he attempted to take anything. The medical man, thinking it principally nervousness, as the man denied ever having been bitten by a dog, ordered him a mixture of chloric ether,

etc. The patient, however, afterwards said that he had been bitten seven years ago, but it had escaped his memory when asked before. About two in the afternoon delirium set in; his head was shaved, and the temporal artery divided. He became so delirious that it was necessary to tie him down. Morphia was administered, but with little or no effect. Chloroform was also tried, but found to be of no service. His gestures and exclamations were horrible. He continued to eject froth and saliva, along with a dark fluid, which he threw some distance by the shaking of his head. He made attempts to bite those who came near him, and it was with great difficulty that he was restrained. He became insensible, and died in the afternoon.

HEALTH OF THE BRITISH ARMY. Dr. Franklyn, surgeon of the 10th Foot, refers as follows to those diseases of a special type which are the bane of the British soldier:—"Professor Maclean, in his introductory lecture at the Royal Victoria Hospital, Netley, states that the ills which arise from the diseases in question, rendering the soldier prematurely old and inefficient, amount to 50 per cent. In judging of the health of troops, the following points must be considered: viz., length of service; length of tropical service; age of the man; whether married or single. Among British soldiers, as age increases, so the mortality, in comparison with the civil population, increases to an immense degree; and almost all the rheumatism, and, in fact, many other diseases are traceable to the soldier having been the victim of that class of diseases of which I speak. If not, how is it that this is not the case in continental armies, as the French, Prussian, and Austrian; and why is it that in the Danish and Hanoverian armies the case is reversed, and the soldier, as age advances, becomes absolutely more healthy than the civil population? In the English infantry, the average number of sick is about 50 per 1000 men; in the English cavalry, a little less; in the Royal Artillery, a little more; and the Military Train and dépôt battalions, at most 7000 men, furnish about 1400 admissions *per annum*, on account of these two corps being chiefly composed of old and young soldiers. Striking an average, in the British army, the number of sick is nearly 55 per 1000 of strength; in the French army, 45; in the Prussian, 47; and in the Austrian, 48. Our average time in hospital is 17 to 20 or 21 days; in the French army, it is 16 days; in the Prussian army, it is 16 days; and in the Austrian army, it is 17 days. But the special diseases which constitute the chief admissions in our army keep men a long time under treatment; and this serves to explain why they are longer in hospital than is the case on the continent. These diseases in the English army run up the admissions to from 350 to 450 *per annum*, or nearly one-half, of which one-third are of lighter, and two-thirds of the severer kind. The French army is very fortunate in this respect. Taking the garrison of Paris and comparing it with some of ours, we find the admissions from these diseases were:—In 1858, Paris, 24 per 1000 men; Aldershot, 411 per 1000 men; and Woolwich, 512 per 1000 men. Sometimes in Paris it fell to 16 per 1000 men, while in England it was 20 times as great; and in the worst garrison—viz., Marseilles—it never reached above 113, or considerably less than one-third of our number even at Aldershot. And there is reason to believe, that if it were possible to carry out police regulations, establish special hospitals in our garrison towns, and occupy the men more with their respective trades, that an immense saving in men and money would be the result, and that in the event of a war we should have a fine, healthy, serviceable body of men, instead of the wretched, ill-formed boys who fill up our regiments after a little drain has taken place; boys who, if they enter at eighteen, have really many years to wait before they become completely formed and able-bodied men.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
 TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
 WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
 THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
 FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
 SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Clinical Discussion. The President, "Cases of Large Tumours of the Scalp removed by Operation"; "A Case of Fibrous Tumour of the Uterus"; Dr. Routh, "On a Case of Hydrocephalus of several years' standing"; Dr. Gibb, "Removal of a Pin from the Larynx"; 2. "Removal of the Bristle of a Tooth-Brush from the Tonsil"; 3. "United Fracture of the Pommel Adam in a Phthisical Boy"; Mr. Hart, "Ophthalmic Diseases"; Dr. B. W. Richardson, "On Iodine as a Disinfectant"—Asiatic.
 TUESDAY. Statistical.—Pathological.—Ethnological.
 WEDNESDAY. Meteorological.—Society of Arts.—Geological.
 THURSDAY. Harveian Society of London, 8 P.M. Dr. Drysdale, "On Evidence against the Internal Use of Mercury in Syphilis and other Diseases."—Zoological.—Royal.—Antiquarian.—Linnæan.—Chemical.
 FRIDAY. Western Medical and Surgical Society of London, 8 P.M.
 SATURDAY. Royal Botanical.—Association Med. Officers of Health.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—NOVEMBER 7, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys..1011	1963
	{ Girls.. 952	1270
Average of corresponding weeks 1853-62	1879	1270

Barometer:
 Highest (Fri.) 30.323; lowest (Mon.) 28.900; mean, 29.731.
 Thermometer:
 Highest in sun—extremes (Fri.) 80.4 degs.; (Sat.) 53.1 degs.
 In shade—highest (Wed.) 60.8 degs.; lowest (Fri.) 34.3 degs.
 Mean—47.3 degrees; difference from mean of 43 yrs.+1.5 deg.
 Range—during week, 26.4 degrees; mean daily, 10.9 degrees.
 Mean humidity of air (saturation=100), 87.
 Mean direction of wind, S.W.—Rain in inches, 0.86.

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

IF A MEMBER will refer to the JOURNAL of August 29th, 1863, page 245, he will there find remarks made relative to the action of "Beck v. Sterne". Members and Licentiates of the College of Physicians can make legal charges for medical attendances. Fellows of the College cannot do so. They have debarred themselves of the privileges once offered to them of doing so under the Medical Act.

G. D. M.—A correspondent writes for explanation of a short notice at page 461 of the JOURNAL, headed "The New Register". He says he "cannot understand it, as it seems to be a self-evident truism."

[Our correspondent's error—for the error is all his—arises from his supposing that the Register is published on January 1st, which it is not. The paragraph simply says: That no names will be inserted in the published Register, which may be inserted in the Registrar's Register after January 1st. EDITOR.]

MEDICAL CHARGES.—SIR: I was very glad to see in the report of the late meeting of the South Midland Branch, that the subject of medical charges was brought prominently before the notice of the members. I am sure the great body of general practitioners would rejoice to see a change for the better; for as matters are at present, it is a difficult thing with some to make both ends meet; and many of the ignorant public are not satisfied unless they have a certain amount of medicine. It is only just and right that the remuneration of the medical profession should depend solely upon the time and skill devoted to their patients, without reference to the quantity of medicine supplied. I think it would be advisable if a similar resolution were adopted by each Branch of the Association.
 I am, etc.,
 JOHN CANDY, M.D.
 Alstonfield, near Ashbourn, Nov. 3rd, 1863.

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Mr. H. COLLEY MARCH; Dr. T. J. WALKER; Mr. J. VOSE SOLOMON; Mr. F. FRY; Mr. C. HUNTER; Mr. W. PARKER; THE HON. SECS. OF THE EPIDEMIOLOGICAL SOCIETY; Dr. SANKEY; Mr. R. J. ROGERS; Mr. J. ROBERTSON; THE HON. SECRETARIES OF THE HARVEIAN SOCIETY; Mr. J. HALL; Dr. G. F. GILES; Dr. S. MONCKTON; Mr. LOWNDEN; Dr. D. DUCKWORTH; Mr. WILLIAM BOWMAN; Dr. GRID; Mr. HULKE; Mr. J. Z. LAURENCE; THE SECRETARY OF THE COLLEGE OF SURGEONS OF EDINBURGH; Mr. S. W. FEARN; Mr. APPLEYARD; Mr. G. E. FORMAN; Mr. THOMAS LONGMORE; Dr. J. GARDNER; Dr. P. W. LATHAM; Dr. H. SANDWICH; Dr. H. W. J. ELLIS; Mr. R. W. MARTYN; THE REGISTRAR OF THE MEDICAL SOCIETY OF LONDON; Mr. F. PITMAN; Dr. B. W. RICHARDSON; and Dr. G. M. HUMPHRY.

BOOKS RECEIVED.

1. Reports of Dr. W. T. Gairdner, the Medical Officer of Health for the City of Glasgow. 1863.
2. Principles and Methods of Medical Observation and Research. Second edition. By Thomas Laycock, M.D. Edinburgh: 1863.
3. Asthma, etc., treated by the Water Cure and Air Bath. By W. Macleod, M.D. 1863.
4. Report on Gun-Shot Wounds of Invalids sent to Fort Pitt, etc. By T. Longmore. London: 1863.
5. Life: its Nature, Varieties, and Phenomena. By Leo H. Grindon. Third edition. London: 1863.

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Abstract of Two Lectures

ON

LARYNGEAL DISEASE, AS EXHIBITED BY THE LARYNGOSCOPE.

Delivered to the Students of the Birmingham General Hospital.

BY

JAMES RUSSELL, M.D.,

PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—The view of the larynx which is afforded by the laryngoscope is, in some respects, a peculiar one; and a few words are necessary to explain to you the somewhat unusual relation which the several parts presented in the mirror bear to one another, as well as to point out the portions of the larynx to which you must pay special attention in conducting your examination.

Let me, then, remind you that the throat-mirror is held at a considerable height above the upper opening of the larynx, and that, consequently, the view you obtain of the larynx is a bird's-eye view; the parts are thus foreshortened, and portions of the organ are entirely concealed by others which project in front of them. You have also to remember, that the relative position of parts is inverted in the mirror, so far, at least, as front and back are concerned; though such inversion does not involve the objects situated on either side. This inversion must be carefully remembered whilst you are educating your hand to introduce instruments into the larynx: the mind must then come to the assistance of the eye, and correct the impressions derived from the latter.

The anterior boundary of the upper opening in the larynx (as seen in the laryngoscope) is formed (Fig. 1) by the extremity of the epiglottis, which describes a curve from side to side; sometimes the extremity of the epiglottis is also curved upwards upon itself, and then we can also see a portion of the under surface of the cartilage. From the perspective nature of the view, to which I have already adverted, but little of the descending sides of the epiglottis is visible; and thus each limb of the curve described by the apex appears almost to rest upon the posterior edge of the larynx.

The posterior edge exhibits on each side the apex of the arytenoid cartilage; and between these apices it is formed by the fold of mucous membrane covering the arytenoid muscle. Like the epiglottis, it is curved from side to side, but in the opposite direction, the concavity of the curve looking forwards (backwards as it appears in the mirror).

This posterior edge is of much importance in laryngoscopy, as it affords us the means of ascertaining the degree of motility possessed by the arytenoid cartilages. This information is of great value in estimating the effect of disease; for the power of the arytenoid cartilages to perform their appropriate functions, depends entirely upon the freedom of movement which they enjoy. The condition of this posterior edge varies with each change in the glottis. During tranquil breathing, the vocal cords are widely separated; the arytenoid cartilages are recumbent;

and their apices, widely apart from each other, are indicated by a little tubercle on each side, lying just beneath each limb of the epiglottic curve (Fig. 1). During vocalisation, on the other hand, the lips



Fig. 1.—Upper Opening of the Larynx as seen with the Laryngoscope. *a a*. Apices of Arytenoid Cartilages. *b b*. Vocal Cords.

of the glottis are brought into apposition; in effecting this movement the arytenoid cartilages rotate on their articulation, and their apices are closely approximated, rising from their previously recumbent position, and elevating the posterior wall of the larynx to an extent which differs in different subjects. We had the means of witnessing all these phenomena the other day, in the unfortunate patient who had laid open his larynx by severing the thyroid cartilage above the vocal cords.

Thus, by fixing your attention upon the posterior margin of the larynx, you are enabled to form an opinion respecting the condition of that organ, as regards its capability both to perform its appropriate functions as an organ of speech, and to afford free admission of air into the lungs.

The opening into the larynx lies between the two curves I have now indicated. It varies in dimensions in different subjects, according to the attitude of the epiglottis, whether prone or erect, peculiar to the individual; and with the size of the opening must also vary the extent to which the interior cavity is exposed to view. In certain persons the epiglottis is naturally so erect as to leave the top of the larynx uncovered, and even to expose the anterior extremities of the vocal cords; whilst in others it is very recumbent, and covers a considerable part of the opening, so that only the posterior segment of the cords is visible.

I may here mention that, under the last mentioned circumstances, advantage may be taken of the well known fact, that the entire larynx undergoes considerable elevation in the neck whilst sounding notes of a high pitch; by this means it may be brought more within the scope of the throat-mirror, and the view of the interior be extended in proportion. By desiring the patient to sound a high pitched E, the larynx instantly rises to a considerable distance, and so approaches the throat-mirror.

The true vocal cords constitute very prominent objects at the lowest part of the laryngeal cavity, conspicuous by their thickness and by their white colour. When apart, as they are in tranquil breathing, the rings of the trachea are distinctly visible between them; and, under very favourable conditions, a very patent glottis, and a directly vertical attitude of the trachea, even the opening of the primary bronchi may be distinguished. This fortunate concurrence of circumstances has once happened to myself.

Having made these preliminary remarks, I now proceed to illustrate a few points in laryngeal disease, which have lately presented themselves to my observation in this hospital and elsewhere; and I shall arrange what I have to say under the head of

three acts, in each of which the larynx is immediately concerned; viz., the act of speaking, that of breathing, and that of coughing.

1. *Voice.* Vocalisation and respiration are directly opposed to each other, as regards the condition of the glottis which each involves. For easy breathing, the lips of the glottis must be widely separated; for vocalising, they must be brought into apposition. Further, the pitch of the voice is regulated by the tension of the vocal cords, which, like the preceding acts, depends upon muscular action. The essential condition for vocalisation lies, therefore, in the free action of the arytenoid cartilages, with the object of bringing the vocal cords into exact parallelism and apposition. The requisites for obtaining this condition are exactly those which are involved in the unimpeded movement of any of the limbs; healthy action of the muscles of the larynx, a normal condition of the articulation connecting the arytenoid with the cricoid cartilage, and a soft and yielding state of the soft parts covering the arytenoid cartilages. These requisites may be violated by disease in various ways.

In the first place, some substance may be interposed between the vocal cords, so as to prevent the closure of the glottis; a familiar illustration is the huskiness of voice produced by the collecting of phlegm in the larynx, at once removed by "clearing the throat". But a better example was afforded by a patient, now about to leave the hospital, whose case will be detailed presently, in whom a pendulous growth, springing from the angle of the thyroid cartilage, lay within the glottis, and was embraced by the cords at each attempt at vocalisation. Not only did this growth prevent the approximation of the vocal cords necessary for clear speech, but it would interfere with the production of sufficient tension of the cords, and would act as a damper upon their vibrations. Even at the present time, when nothing of the growth remains but its base, this small portion, being situated just at the attachment of the cords, is sufficient to interfere with the clearness of the man's voice, by preventing perfect parallelism from being established between the two cords. Hence, in the case of a morbid growth within the larynx, the state of the voice may be accepted as an indication of its situation.

Secondly, the vocal apparatus may be structurally healthy, but the muscles may fail in their action. I am not able to speak of paralysis of the laryngeal muscles from organic disease of the brain; but in hysteria we often meet with instances in which the action of a particular group of muscles is suspended, with a degree of precision in their selection defying the utmost effort of art. Such cases are examples of suspension of voluntary impulse, rather than of paralysis; the influence of the will is withheld for a time from the particular muscle or muscles, not, as in organic disease, by injury to the communicating fibres between the muscles and the seat of voluntary power, but by suspension of voluntary effort itself, in consequence of a morbid state of the nervous system closely connected with the mental functions. By the application of some unwonted stimulant, a voluntary effort is aroused in these patients, and, for the time at least, the quasi-paralysis disappears; too often, however, to return again, or to transfer itself to some other part of the muscular apparatus. You will generally find that the quasi-paralytic affection

dates from some sensation which has drawn morbid attention to the parts moved by the muscles in question, or in some emotion which has relations with the functions to which such muscles administer; in accordance with the law enunciated by Van der Kolk, that, in compound nerves, the sentient filaments are distributed to those parts which are moved by the muscles to which the motor filaments of the same nerve are supplied. A case in point is now in the hospital, in which a nervous girl, affected with excessive sensitiveness of the sole of one foot, has drawn it under the thigh, and, to all appearance, has lost the power of extending her knee.

Loss of voice, from this cause, is a frequent symptom in nervous or hysterical subjects, frequently dating from a slight cold, which has occasioned passing hoarseness and soreness of the throat. In some cases which I have examined, the laryngoscope has completely confirmed the evidence derived from other considerations. In a young lady with very hysterical antecedents, in whom for a time voice was absolutely extinguished, I could not perceive the slightest movement in the arytenoid cartilages when the patient was desired to vocalise, and the glottis retained the widely opened condition proper to tranquil breathing. In a lady of nervous temperament, whose voice long remained very feeble after the subsidence of a common cold, the glottis was only half closed during speaking. In this disorder, which is termed hysterical aphonia, the voice, though feeble and whispering, has none of the roughness observed in chronic laryngitis; and the patients are sometimes sensible that they have to draw breath more frequently than usual whilst speaking, because the chest empties itself with preternatural rapidity, in consequence of imperfect closure of the glottis. Cases of the kind I am describing do not always produce immediate conviction of their real nature, and the laryngoscope thus becomes a valuable assistant in diagnosis; and this aid is the more important, that it is essential to discriminate the affection from others depending on organic change. Nothing could be more mischievous to a case of hysterical aphonia than to keep the patient's attention fixed on the complaint by local treatment; whilst, on the other hand, it would be equally mischievous, in a case of inflammatory disease, to omit proper local and general indications.

Thirdly, the mucous membrane and submucous cellular tissue of the larynx may be so altered by inflammation, as to lose that soft and yielding character which is essential to the free movement of the arytenoid cartilages, on the importance of which I have so often insisted. The submucous cellular tissue may be infiltrated by fluid in acute inflammation, or be hardened by lymph in the chronic form of that disease; the movements of the arytenoid cartilages are thereby as completely impeded as is the action of the elbow-joint by a contracted cicatrix remaining after a burn. Moreover, the swollen mucous membrane advances into the interior of the larynx and partially occupies its cavity, as is strikingly shewn in the illustrative cases; and, in consequence of the irritated and tender condition of that membrane, the movements of the arytenoid cartilages during vocalisation are affected with pain and unwillingness. The true vocal cords do not participate in the thickening with equal readiness; their mucous covering being too delicate and too closely attached to admit of fluid

collecting beneath it; but the false vocal cords, composed of much looser tissue, are very liable to suffer, and, by their swollen condition, take their share in preventing the apposition of the true cords, and in damping their vibrations. I make no more special reference to acute laryngitis, as I have no examples of this disease to bring before you.

In examining the larynx in chronic inflammation, we see the arytenoid cartilages more or less erect, and the glottis on this account more or less closed, and incapable of opening; the posterior edge of the larynx much thickened and irregular; the apices of the arytenoid cartilages prominent; and the lining membrane tumefied; in one of the following cases it was also remarkably granular. The mucous membrane may be preternaturally vascular and bathed with secretion, or it may retain its normal colour and dryness, according as the surface of the membrane is or is not affected by the inflammation. If the epiglottis be involved, it is thickened, contracted, and recumbent, or considerably everted, or even ulcerated.

I may mention ulceration of the vocal cords as another important cause of loss of voice. The mode in which it operates to produce this effect does not require further explanation. Mr. Ryland states (*Diseases and Injuries of the Larynx and Trachea*, p. 103) "if this occur on one side only, the voice is rendered very hoarse and rough, but some degree of vocal resonance remains; but, if both ligaments be destroyed or much injured, the voice is absolutely extinguished."

[To be continued.]

Clinical Records.

BY

HENRY LEE, Esq., F.R.C.S.,

SURGEON TO ST. GEORGE'S HOSPITAL.

XII.—RADICAL CURE OF UMBILICAL HERNIA.

WM. NICHOLS, aged 50, was admitted into St. George's Hospital, under the care of Dr. Bence Jones, in 1861. He left the hospital supposed to be cured at the expiration of six weeks. Soon after this, he found a protrusion at the navel, which gradually increased, until he was admitted a second time into the hospital, on December 16th, 1862.

Upon examination, an umbilical hernia was found, causing a swelling rather larger than a hen's egg. The swelling could with some little difficulty be reduced, but it always returned upon his assuming the erect position. For some time past, the swelling had occasionally become very tense, and remained in that condition three or four days together, causing him much pain, and preventing him from following his occupation.

Dec. 17th. The patient was brought into the operating theatre. The hernia was found full and tense, but was completely reduced after some little difficulty. The tumour was then grasped between the thumb and finger, and three needles were passed through its neck, from side to side, close to the abdominal ring. The collapsed sac was allowed to hang down, and twisted sutures were placed, with moderate firmness, over the extremities of the needles. The patient was then sent to bed.

Dec. 20th. He felt rather low; there was no other symptom. Three ounces of gin were ordered.

Dec. 23rd. The sac felt as if completely consolidated. The needles were removed.

Dec. 24th. He felt quite well, entirely free from pain.
Dec. 27th. No impulse was communicated on coughing to the remains of the sac, which was shrivelling up.
Dec. 29th. He left the hospital apparently cured.

This patient called at the hospital on February 3rd, and on subsequent occasions. There was no return of the hernia; and the skin which had covered the sac, gradually became converted into a dry, dark, warty looking substance, not larger than half an ordinary nut.

Several other cases of umbilical hernia of smaller size, in children, have been recently successfully treated in St. George's Hospital in the manner above described.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

CASES OF COMPRESSION OF THE BRAIN, IN WHICH THE OPERATION OF TREPHINING HAS BEEN PERFORMED: WITH REMARKS.*

By THOMAS P. PICK, Esq., late Surgical Registrar.

THE injuries of the head, in their relation to operative surgery, is a subject of such vast importance to all practical surgeons, that I have thought a narration of some of the cases which have occurred in this hospital during the last few years might be of interest, and might tend to confirm us in our views of the recognised and orthodox treatment, or suggest some other.

Compression of the brain from injury, requiring the use of the trephine, may arise from three causes: 1. Extravasation of blood; 2. Depression of bone; 3. Effusion of the products of inflammation. It will be convenient, for the sake of order, to classify our few cases under these three heads.

I. *Extravasation of Blood.* Of the first class of cases—viz., trephining for extravasation of blood—no instance has occurred during the last few years in the wards of this hospital. They are, however, of the highest importance, not only on account of the great difficulty of diagnosis as to the seat of the effusion, but also on the success which attends the treatment, if resorted to early. One of the chief points to be attended to, in coming to a correct diagnosis with regard to these cases, is that they are usually complicated with fracture of the skull. Of thirty cases, collected at random from the *post mortem* records of this hospital, of extravasation of blood between the bone and dura mater, there was extensive fissure in every case.

II. *Compression of the Brain from Depressed Bone.* The fracture may be simple or compound; may be accompanied by symptoms, or not. Of cases of simple depressed fracture without symptoms, Sir Astley Cooper says: "Intracranial suppuration does not often occur as long as the depressed fracture is covered by integument"; and undoubtedly this is often the case, though Guthrie appears to differ from this view; and cases sometimes occur in which this takes place, as, for instance, the following case.

CASE I. Michael M., aged 25, labourer, was admitted August 9th, under Mr. Henry Lee. Half an hour before admission, he fell down an area, striking his head. He was drunk at the time. When admitted, he was so intoxicated that it was impossible to diagnose what

* From a paper read before the St. George's Medical Society, 1862-63.

head-symptoms there were. The following morning, he was quite quiet, and answered questions rationally. A depression of the occipital bone was felt to the extent of half an inch, to the left of the external occipital protuberance. The pupils were natural, and sensible to light. Pulse quiet; tongue clean. The bowels had acted. He was ordered to have ten grains of calomel immediately, and a senna draught in two hours.

August 11th. He complained of great pain in the head, and was very restless. There was slight facial paralysis of the right side. The pulse was 66, throbbing; the tongue furred; the pupils dilated and sluggish; the bowels acted freely. Symptoms of inflammation now developed themselves; convulsions and symptomatic fever, followed by coma and death on August 24th, thirteen days after the accident.

At the *post mortem* examination, pus was found in the cavity of the arachnoid, and an abscess in the substance of the brain.

In cases of compound depressed fracture without symptoms, the trephine must be applied to prevent impending mischief. The fracture is not here covered by integument, and therefore intracranial suppuration will more probably occur.

CASE II. George Keally, aged 50, was admitted October 20th, 1859, under Mr. Johnson. A short time before admission, whilst working at a mill, he was struck on the left side of the head by the shaft, knocking the opposite side against a wall. On admission (5.30 p.m.), he was quite sensible, and gave an account of the accident. Pulse 60. The pupils acted, and were regular. There was a lacerated wound, on the left side of the forehead, leading down to a fracture of the skull, the bone being comminuted and depressed. There was a long ragged scalp-wound over the right parietal bone, at the bottom of which the bone was exposed. There was no fracture detected on this side. The depressed portions were removed by means of Hey's saw and the elevator. The dura mater was uninjured.

October 21st. He had passed a quiet night, and was in little or no pain. There had been no bleeding. He was quite sensible, and the pupils acted. Pulse 72, full. He was ordered to have three grains of calomel immediately, and a senna draught in four hours.

October 22nd. The bowels acted copiously after the draught. He had been quite quiet, and slept a little. The wound was discharging laudable pus. Pulse 86, full; tongue white at the edges.

October 23rd. He had been very restless all night, with constant twitching of the muscles of the face. He complained of great pain in the head; was constantly moving in bed, and throwing his arms about. He was quite sensible. There was paralysis of the left side of the face. The left pupil was somewhat larger than the right; both acted. The face was flushed; the skin hot; pulse 86, full; the tongue was furred. He was ordered to have three grains of calomel every four hours, and to have a blister applied to the nape of the neck.

October 24th. He was quite delirious, and could not be made to answer questions. He was constantly muttering to himself and talking incoherently. The face was more paralysed; the pupils were dilated and insensible; pulse 96, weaker; the skin was hot. He had passed his urine and motions involuntarily.

Evening. He was quite insensible; his breathing was stertorous. He died at 11 p.m.

POST MORTEM EXAMINATION, fifteen hours after death. The body was in good condition. There was a large scalp-wound, exposing the bone behind the ear, with much lymph in the subaponeurotic tissue. There was another wound on the left side, at the bottom of which a portion of bone had been removed, so that the dura mater was exposed. A portion of the squamous bone was depressed. The dura mater under the depressed bone was healthy, while the exposed portion was smeared

with lymph. A considerable quantity of pus was found in the cavity of the arachnoid on the left side. Some blood was effused in the meshes of the pia mater, over the left hemisphere of the cerebellum, the pons, and down the cord. There was no laceration of any part of the brain; and, except for the compression it had received, it was perfectly healthy. The fracture was traced across the middle fossa into the sphenoidal fissure. There was no blood in the orbit.

CASE III. Mark Stevens, aged 41, bricklayer, was admitted March 9th, 1860, under Mr. Johnson. A short time before admission, he fell off a scaffold, striking his head. He was insensible when picked up. On admission, he had not yet rallied from the concussion, but could be roused sufficiently to be made to answer questions. Pulse 80, weak; pupils contracted, sensible. There were two scalp-wounds on the right side of the head, one of which communicated with bone. A most careful examination failed to detect any fracture.

March 10th. He was quite conscious. Pulse 76; weak; pupils natural; tongue clean.

He went on well till the 15th, when he complained of pain in the head; and was ordered to have three grains of calomel immediately, and a senna draught in four hours.

March 17th. He had become somewhat delirious; but, when roused, answered questions rationally. Pulse 120, full; face flushed; tongue furred; skin hot. The wound was dry, and the tissues infiltrated. He was ordered to have three grains of calomel every four hours.

March 18th. He seemed rather better; there was less delirium, less pain in the head. The bowels acted. The tongue was still furred. Pulse 118.

March 19th. He was still wandering; seemed much weaker and lower. Pulse 100, very weak. He was very restless. There was no discharge from the scalp.

March 21st. A slough having separated this morning, a depression of the bone was discovered under the scalp. An incision was therefore made, and an extensive depression discovered. A very large portion of bone was removed. The bone was very vascular, and had a thick coating of lymph up it.

March 22nd. He had been very restless and delirious all night. His respiration was quick; pulse 108, small and weak. He answered questions rationally, and protruded his tongue when told to do so. The pupils were natural, and acted.

March 23rd. He was still sensible. The breathing was more oppressed. Pulse 112, weak; tongue dry. The wound was quiet; a little healthy pus discharging.

March 24th. Insensibility gradually came on during the night. He was now in a state of coma; pupils dilated and insensible. His breathing was stertorous. He had paralysis of the left side. The pulse was slow and laboured. He died at 4 p.m.

POST MORTEM EXAMINATION. There was a large sloughy wound over the right ear, communicating with a hole in the skull. The dura mater was exposed, and covered with blood and lymph, but not injured. In front of the hole there was a piece of bone, quite loose, but on a level with the rest of the skull. There was a little blood between the bone and dura mater. There was a large quantity of purulent lymph in the arachnoid cavity, in the right posterior fossa, and below the fracture; and a still larger quantity of turbid serum in the subarachnoid tissue down to the base of the brain. It did not appear that the brain was in any way injured. At one point, the cortical structure, below a considerable mass of purulent lymph, appeared a little softened. In all other particulars, the brain was healthy. The other parts of the body were not examined.

Though the rule is to trephine in compound fracture with depression, there are some cases in which this treatment is not necessary, especially in children; for it is an established fact, that children bear greater injuries

to the head with impunity than adults; and that the same amount of injury is less often followed by evil consequences in children.

CASE IV. John C., aged 10, was admitted April 20th, under Mr. Hewett. Just before admission, he was run over by a water-cart. It was stated that the wheel passed over his head. He was stunned to a certain extent by the accident. On admission (11 A.M.), he was not insensible, but was somewhat stupid, as if rallying from concussion. There was a large semicircular wound extending from the external angular process of the frontal bone to the occiput, forming an oval flap. There was a fracture of the skull corresponding to the external wound, with depression of the bone; the lower portion being driven under the upper. There was bleeding from the right ear; no bruising about the face.

1 P.M. Since admission, the boy had vomited a quantity of black blood. There had been bleeding from the nose; and there was considerable ecchymosis around the left eye. The pupils acted. He was quite sensible, and answered questions rationally, but did not give a very clear account of the accident. Tongue dry; pulse 90, quiet. He was ordered to have three grains of calomel immediately.

He went on well without any symptoms till May 3rd, five days after the accident, when the scalp around the wound was noticed to be puffy. An incision was made; and a quantity of bloody pus, mixed with brain-like matter, escaped.

On May 8th, slight facial paralysis of the left side was noticed; which, however, had quite disappeared on the 14th. He had not a single other untoward symptom, but recovered, and went out perfectly well.

Two other cases of very formidable compound depressed fracture of the skull in children have occurred lately at this hospital, in which no operative measures were adopted, both patients recovering.

On referring to my case-book, I find notes of eight cases of well-marked compound depressed fracture of the skull, which presented no symptoms of compression on admission. In two of these cases, trephining was at once performed; the other six being left entirely alone. Of the two that were trephined, one recovered. Of the six other cases, three were those of the three children referred to above, which recovered; two others had intracranial suppuration, and died; and one recovered; but it is probable that in this case there was only depression of the outer table.

We come now, in the third place, to consider a class of cases about which there can be no doubt as to the plan of treatment; though, unfortunately, it is one rarely followed by success. I allude to depressed fracture of the skull, accompanied by symptoms of compression of the brain. In these cases, with very few exceptions, it is necessary to trephine. We cannot place our patient in a worse position than that in which he already is, and we must resort to operative measures as a last resource. The symptoms, however, even in this class of cases, vary very much; and we must be guided by these, in a great extent, as to our prognosis. Contrast the two following cases.

CASE V. Redman Callaghan, aged 16, was admitted January 23rd, 1862, under Mr. H. C. Johnson. A short time before admission, he fell backwards off a ladder, a distance of twenty feet, striking his head. On admission, there was perfect insensibility, stertorous breathing, and paralysis of the right side. There was also ptosis of the right eyelid; the pupils were dilated and insensible; and there was slight eversion of the right eye. The teeth were clenched. The pulse was 62, laboured, and intermittent. He had slight occasional spasm of the face. There were mucous râles over both lungs. There was a distinct depression, with crepitus, over the occiput. An incision was made down to the bone, and a considerable quantity of brain-matter exuded. No fur-

ther attempt was made. He died fourteen hours after the accident.

CASE VI. William Harde, aged 44, police-inspector, was admitted May 31st, under Mr. G. D. Pollock. He was supposed to have been thrown off his horse. He was picked up insensible. On admission, he was unconscious, but sensible to pain. There was no paralysis; the pupils were natural; pulse 60, soft. A small scalp-wound, with depressed bone, was found over the left temple. He was trephined, and the bone elevated. The following day, he was sensible, and remained so for five days, when symptoms of meningitis supervened; and he ultimately sank, and died on the twelfth day after the accident.

How different were the indications of brain-mischief in these two cases! And it is to this that we must more especially look, as we do not so much dread the pressure produced on the brain by the depressed bone, as the concomitant injury which the brain may have, nay, generally has received. Mr. Hewett, in his lecture, says: "It has never fallen to my lot to meet with a single case of cerebral disturbance, of a formidable or urgent character, in which such symptoms were wholly dependent upon depressed bone. In every case which I have seen with these symptoms strongly marked, there was also some extensive extravasation of blood, or some serious lesion of the brain-substance itself." And certainly the records of this hospital coincide with this view. Of thirteen cases of depressed fracture of the skull which died in this hospital, and were examined after death, in nine the brain was lacerated, and much blood effused; in three there was extravasation of blood within the arachnoid, and bruising of the brain; and in the other one there was simply extravasation between the bone and dura mater, and no apparent injury to the brain-substance beyond compression.

CASE VII. James Holden, aged 23, bricklayer, was admitted August 20th, 1861, under Mr. Hewett. A piece of wood had fallen from a scaffold, a distance of sixty feet, on to his head. On admission, he was insensible, and would not answer when spoken to. He, however, resisted any attempt to move him. He was very restless. There was a great amount of ecchymosis around the left eye, and extravasation of blood over the left side of the head. There was a small scalp-wound, leading down to bone, at the anterior superior angle of the parietal bone. There was no paralysis; but the left pupil was dilated, the right contracted. There was bleeding from the nose.

In an hour and a half, the breathing became stertorous, and respiration difficult, and all the limbs paralysed. An incision was made, and a depressed fracture discovered at the anterior inferior angle of the parietal bone. This was elevated with the trephine, and a quantity of blood escaped; but without relief to the symptoms, as he sank and died the same evening.

POST MORTEM EXAMINATION. There was the hole in the skull made by the trephine, at the anterior inferior angle of the parietal bone. From this point proceeded two fractures; one running forwards and outwards through the coronary suture to the left temporal fossa; the other directly backwards to the extent of an inch. There was also a fracture running through the sella turcica to the crista galli. There was much clotted blood on the surface of the dura mater of the left hemisphere. There was a large quantity of serum in the dura mater. The brain was not lacerated.

CASE VIII. George Ballard, aged 30, was admitted July 11th, 1860, under Mr. Hewett. A large piece of timber had fallen on his head, afterwards striking his thigh. On admission, he was perfectly insensible. There was a large extravasation of blood on the left side of the head, with two small scalp-wounds. The breathing was stertorous, and there was bleeding from the nose. The right thigh was fractured. Six hours after the accident,

he was partially sensible. Pulse 56, laboured. He could not move any of the limbs. A crucial incision was made over the vertex; and an extensive fracture, with depression, was found. A large triangular piece of the frontal bone on the left side, limited posteriorly by the coronal and laterally by a fracture in the course of the obliterated frontal suture, was depressed and driven under the adjacent bone. This bone was elevated, after a piece had been removed by the trephine and Hey's saw. After the operation, he was sensible and able to speak; but the breathing again became stertorous, and he died thirteen hours after the accident.

POST MORTEM EXAMINATION. There was a fracture on the vertex of the head, which had traversed the groove for the middle meningeal artery, which was torn across. There was an immense extravasation of blood between the bone and dura mater.

III. Compression by Effusion of the Products of Inflammation. Here the treatment is surrounded with difficulties, as we have to take into consideration two points—first the presence, and secondly the situation, of the pus. The first is always a difficult thing to determine; but the second is all but impossible; such cases as those described by Pott being very rare in the practice of the present day. The treatment is, therefore, necessarily very unsatisfactory, as may be seen from a narrative of the following cases.

CASE IX. John K., aged 28, was admitted Oct. 22nd, 1858, under Mr. Johnson. Two days before admission, in a quarrel with a fellow-servant, he was struck on the head with a bar of iron, which inflicted a wound about an inch and a half in length on the forehead. He did not apply for any assistance till his admission, as he suffered so little inconvenience; though his wife stated he was delirious the night of the accident. On admission, he was a strong, healthy-looking man. His skin was hot, but moist; the tongue was slightly furred; his pulse was quick; and there was a restless manner about him. He had a wound on the forehead, extending from the median line to the left side, an inch and a half in length, the lower part of which was in a sloughy condition. The bone was exposed and rather rough, as if fissured. He was ordered to have two grains of calomel every six hours.

October 23rd. Symptoms of delirium tremens appeared to be coming on. He was ordered gin and opium.

October 24th. He slept well; answered questions rationally. He was very restless. Pulse weak, 90; tongue dry and white.

12 P.M. He was delirious, and had had a convulsive fit. He was ordered to continue the calomel; to have a drachm of mercurial ointment rubbed in every three hours; and a blister applied to the nape of the neck.

In the evening, he was more rational, but passed his urine and motions involuntarily.

October 25th. He was much convulsed; the left hand was most contracted. At 10 A.M. he became unconscious. There was reflex action on irritating the feet. Pulse 96. The pupils were dilated; there was spasm of the right lid, and ptosis of the left. At 1 P.M. symptoms of compression were strongly marked. The trephine was applied in the region of the wound, but he died during the operation.

POST MORTEM EXAMINATION, twenty-three hours after death. There was a wound over the left frontal eminence; here a piece of bone had been removed. A small fissure led downwards from this part, which at first involved the external table of the skull only; this led down to a comminuted fracture of the left orbital plate of the frontal bone, near its junction with the ethmoid. There was no wound of the dura mater in any part, and no effusion between it and the cranium. A large quantity of pus was found diffused over the hemispheres of the brain, both in the arachnoid and sub-

arachnoid spaces. This was in greater quantity at the right side in the parietal region, and had exercised a good deal of pressure on the brain. The left anterior lobe of the brain, near the olfactory bulb, was slightly lacerated, corresponding to the fracture above mentioned. No other organs were examined.

CASE X. James S., aged 9, was admitted July 30th, 1861, under Mr. Tatum. Half an hour before admission, he had been kicked on the forehead by a horse, and rendered insensible. On admission, he was quite conscious. There was a large wound over the left orbit, the bone being exposed. The tongue was clean; the pulse was quiet; the skin cool and moist; the pupils natural.

July 31st. He had passed a quiet night. There were no symptoms of brain-mischief. The bowels had acted. The pulse was quiet; the pupils natural.

August 1st. He had been very noisy and delirious all night. Pulse 120; tongue dry and furred; skin hot. He had twitching of the muscles of expression.

3 P.M. Symptoms of compression had come on. He was perfectly insensible. The pulse was laboured; the pupils dilated. There was no paralysis. A piece of bone was elevated with the trephine, but without avail. Profound coma came on; and he died at 4 A.M., August 2nd.

POST MORTEM EXAMINATION. There was a sloughy wound over the left eyebrow, leading down to a hole in the skull. The dura mater at this point was uninjured. There was a considerable amount of pus in the cavity of the arachnoid. The anterior lobe on the left side was completely broken up, and converted into a large abscess. The roof of the orbit on the left side was driven up into the brain. No other organs were examined.

Transactions of Branches.

READING BRANCH.

REPORT OF THE READING PATHOLOGICAL SOCIETY.

By H. COLLEY MARCH, M.B.

[Read July 1st, 1863.]

WHEN I accepted the proposal which the Pathological Society did me the honour to make me, to read the present address, I thought, Mr. President, that my grand difficulty would have been to digest and arrange in compass sufficiently narrow the transactions of the past year; but, alas! one far more formidable presented itself. To have searched through a thousand reports, and to have made an abstract of the most interesting and instructive, would have been a patient and laborious occupation, but one that I should gladly have undertaken. My difficulty, however, was of an opposite kind, and consisted in this, that the whole number of reports read before the Society during the twelve months ending to-night was only ten.

Thrown, then, so greatly upon my own resources, I have had the arduous task of appending to the abstract of the reported cases a more or less lengthy commentary. This course has been rendered obligatory by the necessity of occupying your attention during the customary time; and, if anything I may say shall seem to you unfitting in a retrospective address, I will cast myself upon your kindness and generosity to excuse me, or at least to lay some part of the blame upon the inexorable requirements of my unfortunate position.

A few cases were brought before the Society illustrating the interesting subject of

UREMIC INTOXICATION.

Albuminuria: Epileptiform Convulsions: Coma: Death. DR. WELLS related the case of J. N., a man aged 36,

who was brought to the Royal Berkshire Hospital suffering from albuminuria, with great congestion of the left lung. Six days afterwards, at one o'clock in the morning, he was attacked with epileptiform convulsions; foaming at the mouth, and biting his tongue severely. He was at once placed in a hot-air bath. At 11 o'clock, he lay in a semi-comatose state; and, having passed no urine since the onset of the convulsive attack, he voided just then a fair quantity, largely albuminous, and of specific gravity 1017. A blister was placed to the nape of his neck; an enema of castor oil and turpentine was injected; the hot-air bath repeated; and a quarter of a grain of elaterium administered every four hours. In the evening, being no better, he was bled to sixteen ounces. The crassamentum was small, cupped and buffed. This abstraction of blood proved the means of temporarily relieving the patient, as he became more conscious, and able to answer questions; but he subsequently relapsed into a semi-comatose state.

In this condition he was found on the following day, when urine passed in natural quantity, of specific gravity 1017, but still albuminous. His pulse was 80. The bowels had not acted, and he was ordered half a grain of podophyllin. The hot-air bath was repeated, and beef-tea injections employed.

On the succeeding day—the third from the convulsive seizure—the coma had become more profound, and he died in the afternoon.

On making a *post mortem* examination, the brain was found healthy, and there was no effusion into the ventricles. The heart was large and flabby. One of the aortic valves contained a calcareous growth. The lining membrane of the aorta was also studded with calcareous deposits. There was intense congestion of both lungs. The right kidney was contracted, hard, pale, and homogeneous in appearance; its surface, when the investing tunic was detached, was found to be granular. The other kidney was also found to have a granular surface; but the remaining changes were much less marked than in its fellow.

It seems to be pretty generally agreed that the cause of uræmic intoxication is the excessive presence in the blood of urea, which there acts as a poison. It seems, too, to be pretty clearly proved that urea, and urea alone, is capable of producing uræmic symptoms. It is true that, if there be in the blood an excess of water, or of ammonia, certain ill effects are produced; and, though these effects in some few points resemble, they are infinitely far from being identical with, those of uræmic poisoning. But, besides this, water and ammonia are of all things on earth the most easily got rid of from the system, enjoying many modes of exit. Hence, indeed, Nature seems to avail herself of this facility; for, in the intestines, the skin, and the lungs, she converts urea into ammonia; or, to speak more correctly, she decomposes the cyanate, which, *undecomposed*, can find only one path of departure from the system, and that path is the kidney.

There seems reason to believe that, in the healthy body, urea is the natural stimulus of the renal function; and so it acts like all functional stimuli; exciting due and proper action when present in moderation; but, when existing in excess, hurrying, embarrassing, impeding, and ultimately arresting, all action whatever.

It is in this way that, when a small quantity of urea is artificially introduced into the circulation, no coma nor convulsion is produced; the only effect being to stimulate the renal function to greater activity. But when a larger quantity is introduced, the kidneys are suddenly called upon to perform a task beyond their power; and they break down in the desperate attempt. If the organs be examined, they are found intensely congested, and their section drips with blood; while the little urine which they, in their agony, may have secreted, is highly albuminous.

Thus it is apparent that uræmia may have either of two starting-points.

In the first place, the *kidney* may be *primarily affected*. It may be spoilt by the poison of scarlet fever, or damaged by a dose of cantharides, or bombarded by the breech of a child, or blockaded by a calculus in the ureter. In these cases, though no more than the ordinary amount of urea be formed, it becomes excessive by accumulation through the closure of its natural way of exit.

But, in the second place, the *excess* may be *primarily produced*. The kidney may be excellent in its way, and do its duty satisfactorily. But it has no power in reserve; all its capabilities are required for its ordinary performances. But a time comes when, for some reason or other, perhaps a gluttonous feast of animal food, perhaps unusual muscular exertion, perhaps a check to the action of the skin or of the lungs—but, for some reason or other, the system produces an extra quantity of urea; and it is precisely this extra quantity that the kidney is unable to excrete, and, being overstimulated, becomes generally incapable.

Of these two points of origin of uræmia, it is often difficult to say, in a given case, which is the real one. For instance, the cause in puerperal convulsions may be the pressure of the gravid uterus on the kidneys—coming under the first head; or it may be the excessive amount of urea formed by the double vitality of the pregnant woman—coming under the second head.

In all probability, under the second head, come those rare cases of Bright's disease subsequent on surgical operations. Here, the sympathetic fever causes a general heating of the system—raising its temperature some 5° Fahrenheit; and this increases the activity of the so-called vital processes, and augments the amount of textural waste, and consequently of urea, which stimulates into congestion a healthy but weak kidney.

The exact starting point of uræmia, though a subject of some interest, is, however, one of very little importance—compared with the consequences, and the means of obviating them.

The blood, in the uræmic condition, is found to be in a highly morbid state, consisting, for the most part, of changes in the fibrine and in the corpuscles; and this does so resemble that state brought about by an artificial alkalisation, that there seems to be little room for doubt that it is due to the decomposition of urea—to the liberation of ammonia from its cyanate. The power of cyanate to produce a comatose state is well known. It has occurred to me that, perhaps, uræmic coma may be occasioned by the circulation through the brain of a salt of this nature.

The congestion in a spoilt kidney is followed by a necessary train of congestions of other organs—of the spleen and liver; of the nervous envelopes; of the lungs and bowels. Of the congestion of these last, nature takes advantage; ammonia being largely present in the breath, and a salutary vomiting and purging being often produced. Nature, however, makes one grand omission. Strange to say, she neglects the skin, and allows it to remain almost inactive; but, perhaps, this is to give, in a mood more generous than common, something for the practitioner to do. What he may do, and ought to do, it was the object of Dr. Wells's report to set forth.

There are two prime indications of treatment:

1. To remove the poisonous excess of urea:
2. To relieve congestions.

Diuretics are altogether out of the question. For a diuretic, in the shape of urea, is already in the system; and its action upon the kidney produces only what every effort must be made to remove, a disastrous congestion. Those organs that are capable of eliminating urea, in some form or other, from the blood—those organs, that is to say, that are vicarious of the kidney—are to be roused into unwonted activity. The hot air bath, as or-

dinarily used, produces a copious diaphoresis; but the Turkish bath, while acting equally on the skin, stimulates more thoroughly the respiratory function.

Purgation is of great value; but it is of vast importance to avoid those aperients that have an irritating effect on the kidneys. Calomel, under these circumstances, is notoriously injurious. But I have known a large dose of scammony produce albuminuria; and have seen bloody urine passed as the result of an administration of santonine. The terebinthinate evacuates are also diuretic. Indeed, vegetable cathartics, as a rule, are liable to irritate the kidneys. Among those medicines that may be safely used to act upon the bowels, may be mentioned pre-eminently, the sulphate of magnesia, where large doses can be given; or the extract of elaterium, where a small dose is requisite—the extract, too, having the advantage of speedy operation. To adopt these measures is, as it were, to place weapons in the grasp of nature, by which she may struggle with her relentless foe. But the practitioner may advance to the rescue sword in hand.

Among the evil vauntings of the homœopathist, it has been his chief boast that he has brought discredit, if not absolute disuse, upon the lancet. He may parade this achievement before the eyes of a silly multitude with the exultation of a regicide who proclaims that he has slain his king. But his folly and wickedness will ultimately recoil on his own head.

There is hardly a fact more firmly established in medicine than the benefit of bleeding in cases of uræmic coma. In every ounce of blood, a tangible amount of urea is removed, while the deadly congestion of internal organs is relieved. The convulsions cease; the brain is unburdened; the mind wakes from its torpor; and the kidneys have a little respite in which perchance to recover.

Another case illustrative of the present subject was related by Mr. WALFORD; and is as follows.

Ante partum Convulsions: Albuminuria: Artificial Delivery: Death. On October 16th, J. L., aged 20, a single woman, in the sixth month of pregnancy, applied for and obtained some aperient medicine.

On the 17th, at two o'clock in the morning, she was reported to be in convulsions; and a dose of croton oil and colocynth was administered. Later in the morning, Mr. Walford saw her, and found her convulsed and comatose, and incapable of being roused. Her skin was cool and her pulse weak. A small quantity of highly albuminous urine was drawn off by the catheter. The womb was examined; but there was no indication of uterine action. A bolus containing a minim of croton oil was given her. At 1 P.M., the bowels had been freely relieved; but there was no improvement in the symptoms. At 3 P.M., she was cupped over the kidneys, and seventeen ounces of blood removed; and at six o'clock, another minim of croton oil was administered. The convulsions continued at intervals, and the coma was uninterruptedly profound.

On the morning of the 18th, the bowels had acted, and some urine had passed; but as no change for the better had supervened, it was determined to bleed from the arm, and at once to induce labour. By means of Dr. Barnes's admirable uterine dilators, the womb was emptied of its contents in an hour and a half, and the patient was then enveloped in hot water packing. At 7 P.M., she had had only one fit; was rouseable; was beginning to pass urine freely; and had taken some nourishment. The hot air bath was then used, and induced a profuse sweat.

On the 19th, it was found that she had passed the night with only one fit; that she had passed urine freely; and that consciousness was returning. The hot air bath was repeated, and nourishment more abundantly administered, with the result of a general improvement.

On the 20th, some hypogastric pain was complained

of; and the neighbourhood of the uterus was tender on pressure. Turpentine stupes and a linseed poultice were applied; and the vagina was occasionally syringed.

On the 21st, hope was bright, and recovery seemed at hand; but in the evening, the pain and tenderness returned, and spread over the entire abdomen. The local applications were repeated, and stimulants and henbane prescribed.

On the 22nd, the case was hopeless. She became comatose, and died in the evening; having been ill five days and sixteen hours since the uræmic convulsions appeared. No autopsy was made.

There are few medical practitioners who have not had the fortune to witness the beneficial results of venesection in cases of this kind; and strongly was it advocated by those who heard Mr. Walford's relation. But while uræmia in a pregnant woman is subject to the general principles of treatment of uræmic poisoning, it presents two special features.

The efficient cause of the attack is generally, in one way or the other, the intrauterine fœtus; and this cause has to be removed. This, which used to be a most tedious and severe operation, has, by the introduction of Barnes's uterine dilators, become one of comparative ease, speed, and safety. These instruments are a great boon, not only to the patient, but also to the obstetrician, to whom, frequently, nothing was more wearisome than attempts at the induction of premature labour. Puncture of the membranes; the introduction of substances between these and the uterine wall; galvanism; the use of ergot of rye; the uterine douche; irritation of the mamma; all these were less certain to induce labour in the patient than madness in the practitioner—who may now, there seems reason to hope, fix his dinner-hour and take his stall at the opera.

The other peculiar feature is, that while aperients are unspeakably valuable in ordinary uræmia, they may give rise to dangerous complications in puerperal cases. Indeed, a recent writer states that "the symptoms of puerperal fever frequently set in after, and seem specially to follow, the free action of purgatives."

One other point may be referred to. A living Frenchman has observed that, when any important discovery is made in science, people first cry out that it is not true; then they object that it is contrary to religion; and, finally, they declare that it is an old discovery, and that everybody knew it before. So, to a great extent, it was when the benign uses of chloroform were brought to light. At first, it was invested with all kinds of horrors and dangers. Persons frequently died under its administration; or become fatuous afterwards; or suffered from the development of unusual complications in the course of the subsequent treatment. Then it was objected that the use of chloroform to exclude pain was irreligious; that the world was under a curse of suffering; that woman was expressly condemned to conceive in sorrow and to bring forth with travail; and that to attempt to escape a doom directly pronounced was to resist Providence. But a better reason soon prevailed; and it was remembered, amongst other things, that when God took one of Adam's ribs, and closed up the flesh instead thereof, He caused a deep sleep to fall upon him. And, at last, chloroform has become so fashionable that the difficulty is to get patients to do without it. Among the multitude of purposes to which it is applied, it is now recommended by some obstetricians, to administer inhalations in cases of puerperal convulsions.

It must certainly be highly expedient, if such a remedy be employed, to ascertain that the urine is free from albumen; for it can hardly be maintained that chloroform can do anything but harm if the convulsions be uræmic. Indeed, it is a question whether anæsthetics be not, as a rule, injurious to the parturient woman; whether they do not interfere with the activity of the

expulsive efforts of the uterus, as they certainly prevent the assistance of the abdominal muscles; whether they do not tend to induce the occurrence of hæmorrhage, while it is certain that in instrumental delivery, by suspending sensibility, they destroy a very great safeguard. Thus, a strong, and apparently a well-grounded, opinion is growing up against their employment in obstetric cases.

Edema during Pregnancy: Albuminuria; Removal of Edema after Delivery: Mania. Mr. WALFORD also related, in connection with the uræmic state, the case of Mrs. G., aged 38, who was delivered of her fourth child, which had been dead some hours. She had been under treatment a month previous on account of an œdematous condition of her face and limbs, coupled with scanty and albuminous urine. Within three weeks of her delivery, the urine reverted to its natural state; but not before puerperal mania had supervened. The discussion of this case elicited from the Society the unanimous opinion that women suffering from puerperal mania should on no account be sent into a lunatic asylum. The husband of the patient in question was desirous of placing her in Bethlehem Hospital. This course was not adopted; but she was removed from home into lodgings; and in a month was nearly restored to health.

Puerperal Convulsions: Recovery: Subsequent Death from Apoplexy in Sixth Month of Labour. A case that raised the question of uræmia, was related by Dr. COWAN. There was a woman in the sixth month of pregnancy; from girlhood till her marriage, she had suffered from chorea. In her first labour she had convulsions, and remained comatose for two days; but contrary to expectation, recovered. On the occasion referred to by Dr. Cowan, she was first of all seized with severe vomiting; then, having been heavy and drowsy for two or three days, fell into a partial insensibility. There was no paralysis, and no stertor. There were no uterine symptoms. The pulse was full. Blisters, leeches, and venesection were employed; but she died on the second day. On examination, a sanguineous clot was found in the right lobe of the cerebellum, and serous effusion over the brain.

During the discussion of this case, it was suggested that uræmia would afford a *causa vera*; for, in this disease the heart makes powerful efforts to overcome the general tendency to vascular congestion; and would be likely to rupture any weak cerebral vessel. But no renal disease was discovered; and the urine left in the bladder after death, was not albuminous. The case received no real elucidation.

[To be continued.]

GRATUITY TO A POOR-LAW MEDICAL OFFICER. The Board of Guardians of the Camelford Union (Cornwall) at a recent meeting, voted a gratuity of £5 to Mr. James Somers, the medical officer of the Bosccastle district, together with the following letter:—"Camelford Union, October 17th, 1863. Dear Sir,—The Board of Guardians having considered the long-continued case of Mary Clements, and your constant care during her painful sickness, on the 2nd instant passed the following resolution:—"Resolved,—That Mr. Somers, the medical officer of the Bosccastle district, be granted the sum of £5 on his application for a gratuity in the matter of Mary Clements; and that the thanks of this Board be conveyed to him for the zealous discharge of his duty in the case." The Poor-Law Board having approved of the grant, I have much pleasure in sending you the enclosed cheque for £5, signed by the Guardians yesterday, as well as the copy of the resolution containing their generous acknowledgment of your services. I am, dear Sir, yours truly, C. HAWKER, Clerk."

Progress of Medical Science.

PREPARATION OF ACONITINE. MM. Liégeois and Hottot describe the following process for preparing aconitine. It is believed to be of English origin, and will, with a slight difference, be incorporated in the forthcoming *British Pharmacopœia*. The bruised root of *Aconitum napellus* is digested for eight days in alcohol slightly acidulated with sulphuric acid. The alcoholic solution is then pressed out, and the alcohol distilled off. A small quantity of green oil and an aqueous extract are thus obtained. The green oil is separated, and the extract further evaporated to the consistence of a syrup. It is now dissolved in water, and neutralised with magnesia, and then shaken up with ether. The ethereal solution on evaporation yields the rough aconitine. This is again dissolved in water acidulated with sulphuric acid, and decolorised by means of animal charcoal. Ammonia is then added to precipitate the aconitine, and the mixture boiled, after which the alkaloid is collected on a filter and dried. This part of the process is repeated once, or twice if necessary, in order to obtain the alkaloid with as little colour as possible. It is eventually precipitated with a very slight excess of ammonia, and dried at a low temperature. Aconitine so obtained is completely soluble in ether, and possesses remarkable activity. The alkaloid received from the Continent, and commonly sold in England, is of very inferior quality. A correspondent administered three grains to a dog without producing the smallest discomfort to the animal. Two milligrammes, or little more than three hundredths of a grain, prepared by MM. Liégeois and Hottot by the above process, killed a frog in four minutes, while it required a grain and a half of the most active that could be found in commerce to produce the same effect. The *British Pharmacopœia* is said to make considerable use of alkaloids; and as, in consequence of their greater cheapness, most of these will be imported from abroad, it will be incumbent on pharmacæutists to test their activity by experiments on living animals, or to procure the alkaloids from reliable English sources. (*Chemical News.*)

PHYSIOLOGICAL EFFECTS OF SULPHURET OF CARBON. Dr. Delpach has recently published some observations on the evil effects of the sulphuret of carbon and other noxious substances employed in certain trades. Sulphuret of carbon is a transparent, exceedingly fluid, and highly volatile liquid, possessing a characteristic and disagreeable smell; it is one of the most dangerous substances known in chemistry, but unfortunately also one of the most useful. Its chief property is that of dissolving India-rubber with the greatest ease, whence it follows that it is extensively used in the factories where that substance is blown into bladders for various purposes. The vulcanisation of India-rubber is chiefly effected by sulphuret of carbon, aided by chloride of sulphur, although it might be equally obtained in certain cases by sulphur alone. But the men engaged in this work are exposed to the effluvia of the sulphuret, which in a short time causes headache, vertigo, and an over-excitement of the nervous system. The patient talks with great volubility, sings incoherently, or laughs immoderately, or else hides himself and weeps. This state may even lead to lunacy, and at all events will cause obtuseness and imbecility. To obviate these serious effects, Dr. Delpach recommends a glass screen to be placed between the workman and his table, leaving two holes for the hands and arms; these also are to be protected by ample sleeves of waterproof stuff. Another hole is to be left for the nozzle of the bellows which they use to blow

the India-rubber into balls. These precautions, Dr. Delpech thinks, ought to be enforced by the authorities. (Galignani.)

PHYSIOLOGICAL PROPERTIES OF NITROBENZOLE AND ANILINE. Dr. Letheby observes that, until recently, there has been a common belief among the unlearned that a skilful poisoner could so apportion the dose and combinations of certain subtle agents that he could destroy the life of his victim with certainty, and at the same time measure his allotted moments with the nicest precision, and defy the utmost skill of the physician and the chemist.

Modern toxicologists have long since discarded these notions, and have set them down to the vague fears and exaggerated fancies of the ancients. But an account of the physiological properties of nitrobenzole shows that there is one substance, at least, which realises to a great extent the extraordinary opinions of the ancients. This compound may be given to-day, and yet, if the dose be not too large, it shall not manifest its action until to-morrow or the day after, and shall then destroy life by a lingering illness, which shall not only defy the skill of the physician, but shall also baffle the researches of the medical jurist.

In every manufactory where nitrobenzole and aniline are prepared on a large scale, the peculiar narcotic effects of these poisons are often observed. The vapours escaping into the atmosphere are breathed by the workmen, and cause distressing headache and a heavy sleepy sensation. For the most part these effects are not serious, but are quickly relieved by fresh air and a mild stimulant, as a glass of brandy-and-water. Now and then, however, the workmen, from carelessness in their habits, expose themselves to the action of comparatively large quantities of these poisons, and then the effects are most dangerous. Two fatal cases of poisoning by nitrobenzole have been referred to Dr. Letheby by the coroner for investigation during the last two years, and in both instances they were the results of careless manipulation. The effects were nearly the same in both cases, notwithstanding that in one the poison was inhaled, and in the other it was swallowed. For some time there was no feeling of discomfort beyond that of drowsiness; gradually, however, the face became flushed, the expression stupid, and the gait unsteady—the sufferers had the appearance of persons who had been drinking. Little by little this stupor increased, until it passed into profound coma, and in this condition they died. The progress of each case was much the same as that of slow intoxication, excepting that the mind was perfectly clear until the coming on of the fatal coma. This was sudden, like a fit of apoplexy; and from that moment there was no return of consciousness or of bodily power; the sufferer lay as if in a deep sleep, and died without a struggle. The duration of each case was nearly the same time; about four hours elapsed from the time of taking or inhaling the poison to the setting in of the coma, and the coma lasted for about five hours.

After death there were no appearances of convulsions, but rather of narcotism and apoplexy. The face was flushed; the lips were livid; the superficial vessels of the body, especially about the throat and arms, were gorged with blood; the dependent parts were turgid; the blood was everywhere black and fluid; the lungs were somewhat congested; the cavities of the heart were full; the liver was of a purple colour, and the gall-bladder distended with bile; the brain and its membranes were turgid, and in the case of the man there was much bloody serosity in the ventricles. Analysis discovered the existence of nitrobenzole in the brain and stomach, and also of aniline.

These effects were so remarkable, that Dr. Letheby determined to examine them still further by experiments on domestic animals. Two classes of effects

were clearly observed; there was either the rapid coma which characterised the operation of the poison on the human subject, or there was a slow setting in of paralysis and coma, after a long period of inaction.

The general conclusions which appear to Dr. Letheby to be warranted by his investigations are:—

1. Nitrobenzole and aniline in its free state are powerful narcotic poisons.
2. They exert but little action, as local irritants, on the stomach and bowels.
3. Although the effects may be quick, and the fatal termination of them rapid, yet nitrobenzole may remain in the system for a long time without manifesting its action.
4. The salts of aniline are not nearly so poisonous as the free alkali.
5. In rapid cases of fatal poisoning both the poisons are readily discovered in the dead body.
6. In slow cases the poisons may be entirely changed or eliminated, and therefore not recognisable.
7. Both of the poisons appear to be changed in the body by processes of oxidation and reduction, nitrobenzole being changed into aniline, and aniline and its salts into mauve or magenta. (*Phar. Jour.*)

THE AGENCY OF THE PERIOSTEUM AFTER EXCISIONS. M. Forget passes in review a prolonged discussion which took place in the Paris Surgical Society, consequent upon a report which he presented to it upon Professor Rizzoli's memoir on *Subperiosteal Resections*. During the discussion the whole question of the osteogenic power of the periosteum was handled, and the following are the ultimate conclusions which M. Forget believes to be fairly deducible.

1. The osteogenic property of the periosteum, brought into light by recent researches in experimental physiology, has been much more utilised of late years than formerly.
2. The part which surgery can derive from this property in the treatment of diseases of bone is limited, especially by the condition of the periosteum, the characters of these diseases, and the nature of the local and general causes which have produced them.
3. Subperiosteal resections, applied to organic and traumatic lesions of bones, have not, thus far, furnished results resembling those derived from experiments upon animals.
4. Preserved in the midst of a resection, or of a fracture with loss of substance of bone, the periosteum may there become the generative element of a new ossification, which the surrounding tissues would themselves be incapable of producing in a like degree.
5. The bony tissue of this new formation is not a faithful copy of the physiological bone. It is only an incomplete production of its solidity, form, functional aptitude, and anatomical structure.
6. In those pathological cases in which clinical experience determines amputation to be necessary, no fact, to the present time, has demonstrated the possibility of avoiding this by means of subperiosteal resection.
7. Nor has any clinical observation as yet shown the superiority and advantages of subcapsular periosteal resection in the treatment of surgical affections of the joints, whether spontaneous or traumatic.
8. In the operations for facial autoplasty, the periosteum may be usefully comprised among the flaps serving as a basis for the production of osseous or osteiform tissue, capable of repairing loss of substance and solutions of continuity, undergone by the bones of the face. (*L'Union Méd.*, and *Brit. and For. Med Chir. Review.*)

CANINE MADNESS. The generally received opinion that this disorder is constantly fatal seems about to be seriously questioned. The *Abeille Médicale* publishes a letter from Mr. E. Decroix, a veterinary surgeon, in which he arrives at the following conclusions.

1. A subject labouring under canine madness may die without any fit of frenzy;
2. In a subject in whom the disorder is characterised by such fits, their frequency is in the direct ratio of exterior provocation;
3. A dog may in a

violent fit of anger communicate the disease by a bite, and yet continue to enjoy perfect health; and, 4. There are examples which show that communicated rabies is capable of cure, either spontaneously or by means of a proper treatment. In support of the fourth point, the following cases are given. In the first, a dog inoculated with the saliva of a man attacked with the disease a fortnight afterwards displayed all the symptoms of quiet madness, which, however, gradually diminished in intensity, and at length disappeared entirely in the course of thirteen days, without any remedy being applied. The second case was much the same. In the third case, a man and his wife were bitten by an unknown dog. A month later the man died of confirmed rabies at the hospital. Two days after his death his wife was taken ill and received into the hospital, where the physician pronounced her disorder to be rabies; nevertheless she got better, and eventually recovered. The fourth case is one reported in 1777 by the surgeon Beudon. A sow and a little dog were both bitten by a mad dog, which afterwards ran away, but returned two days afterwards in a pitiable state. Beudon had it put into a cage, and for several days it displayed all the symptoms of rabies. Beudon then caused vinegar to boil in the cage, so as to expose the animal to the fumes. By degrees the patient got better, and at length recovered. Six days after the infliction of the bite the sow became raving mad, a state which lasted seven hours. Beudon took advantage of a momentary respite to cause boiling vinegar to be let down into the sty. When the vinegar got cool the sow drank some, and got better; vinegar was then mixed with its food, and in the course of a few days the animal was radically cured. The little dog had no symptoms at all. It may now be asked whether the cures were spontaneous or owing to the vinegar. M. Decroix thinks that among all the nostrums proposed as specifics for this terrible affection there may happen to be one of real value, but rejected on account of the preconceived opinion of the incurability of the disease.

THE CAUSE OF DEATH FROM SUPERFICIAL BURNS. M. Baraduc's observations are confined to extensive burns, accompanied by large phlyctenæ. Dupuytren ascribed death resulting from these to the shock consequent on the excessive pain; but the author believes it due to modifications in the condition of the blood. The serum of this fluid is abstracted in excessive quantity, and the accidents which result are proportioned in gravity to the amount of this abstraction. Besides reasoning from analogy, M. Baraduc adduces the results of autopsies in support of his theory. He has found that the viscera of persons dying from the effects of extensive superficial burns exhibit a surprising dryness of tissue, while there is an absence of fluid in all the serous cavities. The right cavities of the heart, too, are empty, while the left are gorged with dark, coagulated, non-fibrinous blood. The pulmonary veins and the aorta are filled with similar blood, while the venæ cavae are nearly empty. The femoral, popliteal, and brachial arteries are gorged with blood of a gelatinous consistency, the corresponding veins being almost empty. Death in these cases is then to be attributed to the difficulty or impossibility which the blood, inspissated by the loss of its serum, finds in passing from the arteries into the veins. The indications for treatment are to increase and render fluid the mass of the blood, and arrest the exsmosis, which constitutes the vesication. For the fulfilment of the first of these, the patient should be kept in a bath (at a temperature of 80° to 82°) for ten to fourteen hours, and abundant drinks of a slightly diuretic or emollient nature should be given him. Enemata and tepid injections into the bladder should also be had recourse to, and the vapour of some emollient fluid should be inhaled. If the patient be very weak, chicken broth, or even a fuller diet, must be given. The fluidifying of

the blood may be promoted by substituting alkaline baths, drinks, and injections. To prevent a continuance of the exsmosis, the parts, after the patient has left the bath, must be dressed with cerates, thickly covered with wadding, and submitted to gentle compression by means of a bandage. The bath should be repeated daily, its duration being gradually abridged. In two cases, the author has been successful in fulfilling these indications. (*L'Union Méd., and Brit. and For. Med.-Chir. Review.*)

ON THE IMPORTANCE OF TAPPING THE JOINTS AND BURSE MUCOSÆ. Professor Inzani of Parma asserts the perfect harmlessness of puncturing a distended joint, even during the progress of acute inflammation. The fear of bad consequences following from the wound of the tendinous structures is a mere imagination of the ancients; nor does the air ever appear to make its entrance. The puncture may be made with a trocar or a lancet; the latter is preferable for superficial joints. The author has operated very frequently on the knee, several times on the elbow, occasionally on the carpus and ankle, and once only on the hip; no bad consequences ever followed. Pressure by means of a starched bandage should be made, and when the synovial sac re-fills it should be again punctured before the distension has advanced too far. In this way a radical cure may be obtained. Examples are given in which large joints, principally the knee, were opened for effusions of blood, of serum in acute inflammation, of serum in chronic inflammation, and of pus—usually with a successful result. But paracentesis should be avoided where the skin is much thinned and ulceration seems impending. In the synovial bursæ, paracentesis has given equally good results. The examples which are given are those of effusion in the sheaths of tendons after accident (as the peronæi in sprains of the foot, the extensors of the thumb in falls on the hand), in which a puncture will give exit to synovial fluid mixed with blood, with much relief to the pain and abbreviation of the course of the disease. The author believes that by these punctures chronic synovitis may often be arrested in cases which, treated by ordinary methods, would end in "white swelling," and that in dropsy of the joint the treatment by repeated puncture and pressure is as effectual and more safe than by injections. (*Omodei's Annali and Brit. and For. Med.-Chir. Review.*)

BRONCHO-MUCO-ALTERANTS. Dr. Easton, in a paper On the Use of so-called Expectorants in Diseases of the Mucous Membrane of the Lungs, etc., gives the following general conclusions. 1. As in the early stage of acute bronchitis, the pulmonary mucous membrane is inflamed and dry and the bronchi consequently contain nothing to be expectorated, the remedies which are employed in the treatment of that form of the disease cannot with any propriety be called expectorants. 2. As the principal indication of cure in acute bronchitis is to alter the condition of the mucous membrane, to make it natural and moist from being inflamed and dry, the agents which effect this change might be called relaxing broncho-muco-alterants. They are, principally, inhalation of vapours, tartar emetic in one-twelfth or one-sixth of a grain doses, ipecacuan in one-quarter or one-half grain doses, henbane, hemlock, aconite, green hellebore, hydrocyanic acid, demulcents, alkalies, etc. 3. As in chronic bronchitis the system generally is often in an atonic state, and the mucous membrane of the lungs is always so, the indication of cure is to invigorate the general system by tonics, stimulants, and general hygienic measures, and particularly to alter the ærian membrane from a state of debility to a state of health by the administration of those medicines which are known to stimulate that surface, and such agents might be called stimulating broncho-muco-alterants. They are, principally, squill, leek, onion, garlic, benzoin, styrax, prepara-

tions of tolu and peru, turpentine, copaiva, the foetid gums, myrrh, senega, lobelia, sesquicarbonate of ammonia, etc. 4. As coughing is necessary for the removal of excessive muco-purulent secretion and the consequent relief of dyspnoea, and is a muscular act performed by respiratory muscles, it is often necessary to excite these to healthy contractions, and the means for that purpose, when employed in that special relation, might be called pneumo-musculo-excitants; these means are, chiefly, stimulants, especially the sesquicarbonate and aromatic spirit of ammonia, alcohol, as also tonics as a class, and more particularly, nux vomica, iron, cinchona, along with general hygienic measures, the use of embrocations, sponging and friction, and the inhalation of stimulating vapours, so as to excite the afferent branches of the pneumogastric nerve that are spread out upon the mucous membrane of the larynx. (*Glasgow Medical Journal*, October 1863.)

ANTIDOTES FOR STRYCHNIA. Professor R. Bellini, after conducting a long series of experiments on poisoning by strychnia and its salts, arrives at the opinion, that the best antidotes are tannic acid and tannin, chlorine, and the tinctures of iodine and bromine. Chlorine, he maintains, attacks the strychnia even when it is diffused through the system, for he found that in rabbits poisoned with the sulphate of the alkaloid, on being made to inhale chlorine gas in quantity, such as was not sufficient in itself to kill, the convulsions were retarded, and were milder when they occurred; death also was less rapid. The author further observed, that when strychnia was exhibited with pyrogallie acid, the convulsion was retarded for the space of half an hour, by comparison with other experiments in which the alkaloid was given by itself. Professor Bellini believes that this arrest in symptoms is not dependent on the acid acting chemically on the strychnia, but only through the astringent effects produced by the acid on the mucous membrane of the stomach, whereby the absorption of the poison is rendered difficult. The same author, dwelling on the frog-test for strychnia, asserts that this test is not to be trusted, inasmuch as other poisons produce the tetanic symptoms, although in a lesser degree. He adds, in speaking of the effects of the antidotes to which reference has been made, that he trusts his results will have a bearing not only on the treatment of strychnine tetanus, but on traumatic and idiopathic tetanic disease. (*Annali di Chimica*, and *Brit. and For. Medico-Chirurgical Review*.)

ACTION OF IODINE IN URINE. Dr. Percy of New York writes respecting Trousseau and his new iodine test (?) as follows. It is claimed that M. Trousseau has made the discovery that iodine is deprived of its colour by human urine. By referring to the *American Medical Times* of March 1, 1862, in my lecture upon iodine, after giving the various methods for detecting iodine in the urine, the following language is used: "but, as the urine itself has the property of decolorising iodine," etc. Again, in my lecture of March 8, 1862, the following language is used: "The saliva, the nasal and pulmonary mucus, the blood, and the urine, when added to small quantities of iodide of starch, completely deprive it of colour; the same decolorisation also takes place if applied over an ulcer, and the sweat produces the same result." Dalton makes the same observation with regard to the gastric juice, and, if my memory does not betray me, he makes the same remark regarding the urine as the results of his experiments, as I, in the instances here mentioned, state as the result of my experiments. I do not deny the industry of our French medical brethren; I merely mean to assert, as I have so frequently done, that we are not behind them either in industry or invention. I must confess, that I have been not a little astonished to see how eagerly many of our medical

journals seize upon discoveries or novelties that they receive from abroad, and neglect even to notice important discoveries made at home. We do not receive any too great praise abroad; it therefore behoves us to be watchful of what rightfully belongs to us. There is no novelty whatever in the facts stated by M. Trousseau; chemists have been for some time aware of them, and, as will be seen by reference to my lectures in your Journal, we have taught it to our students of materia medica. (*Amer. Med. Times*.)

PREGNANCY IN ADVANCED AGE. Dr. Carpenter, of Durham, tells us that he has attended in their confinements several women whose ages were 50. "I well recollect a case occurring in my father's practice in 1839, where a woman became a widow at 49 years of age. Shortly afterwards she married her second husband, and within twelve months of this time gave birth to her first child. These cases belong to the working classes. But I know of two others, where gentlewomen became mothers at 50; one with her first child, the other with her eighth. I can say nothing of how they menstruated; but I know of a virgin in whom the catamenia appeared regularly and undiminished up to and at the age of 60." Dr. Powell says, that he last year attended a woman in her fifty-second year; and Mr. Heckford, that he attended a woman who stated her age to be at least 50; Mr. Clarke of Mold states, that he has attended several women whose ages were upwards of 44, and that he lately delivered a woman of her first child at 48. Mr. Bloxam of Portsmouth delivered at 52, in her first confinement, a woman who had been married 35 years.

ACTION OF PHENIC ACID. *On the Human Skin.* Immediately after the application of a thin coating of the pure acid, a sharp smarting is felt, which lasts about an hour. The epidermis becomes wrinkled, and in a short time the formation of a white body may be remarked wherever the acid has touched. This white coloration results from the action of the acid on albumen; it disappears by degrees, and is replaced by some congestion, which lasts about twenty days. This congestion presents all the characters of an intense inflammation, being attended with redness, heat, and swelling. If a small piece of the epidermis (which appears raised as in a blister) be stripped off no serum escapes. The epidermis becomes detached by degrees, and when the exfoliation is complete a brown spot remains, which testifies for a long time to the energetic action of the acid. After a number of experiments on his own arms, and the arms of his friends, M. Lemaire states that the smarting never lasts longer than an hour. The redness of the skin endures about twenty days, but the inflammation never extends beyond the part to which the acid has been applied. *Action on the Mucous Membrane.* The action of the pure acid on the mucous membrane is, of course, analogous to its action on the skin; acute smarting, shrivelling up of the epithelium, and a milky coloration being observed. The smarting does not last so long as on the skin, especially on such membranes as produce an abundant secretion; and the epithelium quickly returns to its normal condition. *Action on the Respiratory Organs.* From experiments on mice and horses, the author concludes that the higher animals may breathe the diluted vapour of the acid for a long time without discomfort or danger. (*Chemical News*.)

EXPECTORATION OF CRETACEOUS TUBERCLE. At a meeting of the New York Pathological Society, Dr. Flint stated that he had frequently met with cases of expectoration of cretaceous tubercle, but the most striking instance was one which had come to his notice many years ago, where a patient had coughed up from time to time a sufficiently large number of calculi to supply all the medical men for miles around with specimens. That pa-

tient had well marked physical signs of tubercular disease. He was advised to change his habits of life, which were sedentary, and go out west, which he did. He became a farmer, and at the end of fifteen years he was in perfect health. Dr. Flint stated that the calculi formed as a consequence of the absorption of all the animal matter of the tubercle, leaving the deposit of earthy salts. Dr. Finnell thought that the existence of concretions was presumptive proof against extensive and progressive tubercular deposit. He had often met with cicatrices at the apices of lungs, but in the majority of cases he attributed the cause to the contraction of fibrinous deposit outside the lung-tissue, and not as the direct result of the contraction and disappearance of a pulmonary cavity. Dr. Conant corroborated such a statement, and remarked that in cicatrices of pulmonary cavities, in addition to the bands usually met with, there were trabeculae extending in different directions. (*American Medical Times.*)

Reviews and Notices.

SKIN-DISEASES OF PARASITIC ORIGIN; THEIR NATURE AND TREATMENT: including the Description and Relations of the Fungi found on Man. By W. TILBURY FOX, M.D. Lond.; University Medical Scholar; Physician-Accoucheur to the Farringdon General Dispensary and Lying-in Charity. Pp. 210. London: 1863.

ALTHOUGH this is a work on a special subject, the author begins by making us distinctly understand that he is no favourer of specialties. To the formation of skin-diseases into a specialty he ascribes the present unsatisfactory state of their treatment and classification; and says:

"To separate skin-diseases from out the domain, and to study them as other than part and parcel of general medicine, is utterly wrong, and antagonistic to successful treatment; yet such is the marked error of the present day. Diseases of the skin are but outward evidences, in the vast majority of cases, of certain alterations of the blood; and he who would be a thorough dermatologist must comprehend intimately, and have under constant observation, the details of medicine generally. Acne, one of the commonest and most annoying diseases of the surface, to which I have paid much attention, is an apt illustration; I believe, in the great bulk of instances, it is related as cause and effect with definite and remediable derangements of the stomach and uterine functions, mostly, indeed almost invariably, disregarded." (*Preface.*)

But to denounce the specialisation of skin-diseases is not the object of Dr. Fox's book. It is to supply an account of the nature and treatment of tinea, and a description of epiphytes and entophytes, or the vegetable parasites of the human body.

The first chapter in the work contains the author's ideas on the Nomenclature and Description of Parasitic Diseases. Here he aims at simplification; and, throwing aside all such names as scall-head, ringworm, and porrigio, adopts the generic term *tinea* to denote the diseases of the surface connected necessarily with the growth of fungi. The species of tinea which he recognises are, with their synonyms in the writings of other dermatologists:

"1. *Tinea favosa* (Favus—Porrigio Lupinosa of Willan—Favus Dispersus of Wilson—Porrigio Scutulata of Biett and Rayer—Scall-head, etc.)

"2. *Tinea Tonsurans* (Porrigio Scutulata of Willan

and Bateman—Herpes Tondens of Cazenave—Trichosis Furfuracea of Wilson—Rhizo-phyto-alopoeia of Gruby).

"3. *Tinea Circinata* (Herpes Circinatus).

"4. *Tinea Sycosis* (Mentagra—Chin-welk—Mentagrophyte—Sycosis menti).

"5. *Tinea Decalvans* (Porrigio Decalvans of Willan—Alopecia—Area—Ophiasis—Tinea Tondens—Phyto-alopoeia of Gruby).

"6. *Tinea Versicolor* (Chloasma—Pityriasis Versicolor—Pityriasis Lutea).

"7. *Tinea Polonica* (Plica Polonica—Trichoma—Plicatio).

"8. *Tinea Tarsi* (Ophthalmia Tarsi—Psorophthalmia)."

Thus Dr. Fox brings together, under one name, skin-diseases where the presence of a parasitic growth is held to be the *essential* element. In other forms of cutaneous disease, indeed, vegetable parasites may be sometimes present; but in such cases he would apply the term "parasitic" to the disease—*e.g.*, parasitic herpes, parasitic lichen, etc.

Each of the species of tinea is attended with its special fungus; as will be shown in a table to be presently given.

The chapter is concluded with a brief notice of the curious Indian disease, the "Madura foot," in which, among human maladies, vegetable parasitic growth seems to attain its most luxuriant development.

In the second chapter, the author enters on debatable ground, and treats of the Nature of Parasitic Disease. Since the discovery of the presence of fungi in skin-diseases, there has been, as is well known, much diversity of opinion among dermatologists as to the relation of these growths to the diseases. A fair exposition of these differences will be found in the present chapter; but we can only deal with Dr. Fox's own opinions. He recognises three conditions for the existence of tinea or parasitic skin-disease; viz., 1. A suitable soil; 2. A pathological lesion (disease of hairs and epithelium); 3. The cause of such lesion (the fungus). As to the soil, he agrees with the majority at least of observers in recognising the fact, that parasites will not grow on a healthy surface. If we understand him correctly, he associates the development of tinea with the presence of morbid states of the blood characterised by a tendency to non-specific eruptions.

"It is usually taught that tuberculous, scrofulous, and dirty people furnish the best nidus, and it is just these very subjects whose general nutrition is disposed to express itself in non-specific eruptions; and it would appear, from all considerations, that the non-specific eruptive crisis is that which supplies the necessary and only fit soil for fungous growth; the crisis, or *tendency to eruption*, because by no means need there be any actual manifestation present in the form of eruption, which is the culmination of the peculiar blood-state." (P. 19.)

After giving a number of reasons in favour of this view, he says:

"The point is one which admits of very much hypothesis, and much research is needed before we can arrive at a scientific result; but for clinical purposes there is no lack of guides to treatment, and it may safely be concluded that such as are mostly predisposed to exhibit the tuberculous and non-specific eruptive crisis are the most likely to nourish parasites, and the same general treatment is applicable to the two cases." (P. 27.)

The next point considered is the pathological le-

sion—the disease of the hairs and epithelium—by which tinea in its various forms is attended. Is the parasite an accident of the disease? or a necessary element? On this question, Dr. Fox presents for consideration the following arguments:

"1. Nothing but the growth of a fungus can produce the ravages upon the hairs and epithelial tissue, seen in the tinea.

"2. Whenever the parasite is absent, the damaged hairs, etc., are never found.

"3. The disease will certainly not be cured unless the parasite be destroyed or die.

"4. The fungus in a state of growth need be the only abnormal state present in addition to the disease of the hairs and epithelium.

"5. The disease of the hair and epithelium is pathognomonic of a fungous growth." (P. 29.)

Several good observers have sometimes found fungi in psoriasis, lepra, eczema, etc.; and sometimes have failed; hence they have inferred that the presence of parasites is accidental. To this Dr. Fox replies to the effect, that *eruptive* disease and *parasitic* disease are two distinct things. Fungi, when present in a true eruptive skin-disease, do not produce their pathognomonic lesions in a sufficiently marked form to make any appreciable difference in the character of the disease; while the true parasitic diseases cannot exist as such—as tinea—without the presence of a fungus. In them there may be, and often is, eruption, prior to the implantation of the parasite; but "assuredly, in the majority of instances, no physical change has taken place prior to the planting of the fungus." The author, indeed, is inclined to attribute the presence of eruptive phenomena in parasitic disease to the irritation produced by the parasite, rather than to regard them as preceding its development; and he explains the fact that good observers have apparently seen nutritive changes in the skin precede the fungous growth, by the supposition that they have probably overlooked the early or granular state of the fungus—a condition which he describes as "a minute granular infiltration, or nuclear form, identical with the stroma of fungi, and which may germinate into the more perfect state of sporule or spore."

In the third chapter, the author gives a General Outline of Diseases other than the True Tinea, complicated by the Growth of Fungi. How are we to infer the existence of a fungus in cases of ordinary eruptive skin-diseases? Dr. Fox, after pointing out *seriatim* the points on which a diagnosis may be founded, thus sums up:

"Speaking of the ordinary forms of eruption, we may suspect the existence of a parasite if the disease be unsymmetrical, circular, increasing centrifugally, obstinate, attended with pruritus, of a brownish tint; if there be any evidence of contagion, and if it occur in the inmate of a school, or in those exposed to great heat; if it be seated where hairs are growing; and the diagnosis is rendered certain if we find the fungus-elements and damaged hairs." (P. 44.)

The fourth chapter contains a notice of the Special Conditions which determine the Form and Seat of Disease. These are discussed under the heads of constitution; age; sex; seat of the disease; and hygienic and social condition. Dr. Fox here discusses at some length the circumstances which in the child and the adult respectively predispose to

or allow the development of tinea. He questions the correctness of the statement, made by Mr. Hutchinson and others, that the adult human scalp is rarely if ever attacked by ringworm; and adduces instances of tinea tonsurans and circinata which have come under his notice in persons above forty years of age. The reason why adults are less frequently attacked by ringworm is found in nutritive changes. In the child,

"The circulation of the scalp is particularly active, the tissues are more delicate, the hairs are rapidly growing, and hence disease is determined to this locality."

In the adult, on the other hand,

"The necessary nidus gradually lessens in intensity; its evidences are less distinctly marked. Hence the scaly replace vesicular and pustular eruptions; hence, also, parasitic diseases are neither so well marked nor so frequent; the tissues are denser and more resistant, and in some degree may counteract the onset and spread of parasitic growth. Further, the local circumstances favourable to the latter—viz., secretion, moisture, etc.—are nil, or in little amount in the scaly affections of the adult. And, lastly, in those cases of adults affected by tinea, we often find symptoms of stomach derangement in the form of dyspepsia, or signs of the non-specific eruptive crisis, present." (P. 47.)

The fifth chapter contains an account of the Fungi themselves, and their Microscopic Characters. We have not space for an abstract of the descriptions which the author gives of the fungi; we will only say, that the understanding of them is facilitated by four plates containing figures representing the several epiphytes described, which have been admirably drawn *ad naturam* and engraved by Mr. H. O. Smith.

The following are the fungi met with in man, from a table given by Dr. Fox at p. 50:

Genera.	Species.	Disease in which found.
Trichophyton	Tonsurans.	Tinea Tonsurans.
	Sporuloides.	Tinea Polonica.
	Ulcerum.	Ulcer of Leg.
Microsporon	Metagrophytes.	Tinea Sycosis.
	Audouini.	Tinea Decalvans.
	Furturans.	Tinea Versicolor.
Achorion	Schönleini.	Tinea Favosa.
Oidium	Albicans.	Aptha.
Puccinia	D'Arnst.	Tinea Favosa.
		Tinea Tarsi.
		Acne.

The genera trichophyton and microsporon belong to the group *Torulacés* of the division *Arthrosporés* of Robin and Laveillé; the achorion and oidium to the group *Oidiés* of the same division; and puccinia to the division *Clinosporés* of the above-named authors.

In the sixth chapter, the author gives a Summary of the Microscopical Appearances presented by the Lesions arising from the growth of fungi. The changes which take place in consequence of the parasitic growth are described as they occur in the hairs, in the epidermis and epithelium of the surface and of the hair-follicles; in the follicles themselves; and in the glands.

The seventh chapter is on Diagnosis. This is comparatively easy in regard to the more ordinary forms of tinea; and becomes difficult only when the tinea partakes of the scaly character, or when non-parasitic eruptions are complicated by fungous growths. Dr. Fox gives in detail the means of distinguishing

tinea from erythematous, papulous, vesicular, and pustular eruptions.

In the eighth chapter, the author gives the Prognosis of parasitic skin-diseases. A spontaneous cure, he says, is rare; and no case is so bad as to be utterly incurable. But the duration of the disease is modified by general as well as by local circumstances; a marked scrofulous diathesis, especially, mostly indicates that the cure will be tedious. As regards local guides, the length of time during which the disease has existed is an important point to ascertain; but even long duration on the part of the disease indicates, not incurability, but the necessity that "the patient follow out implicitly the directions of the medical man, and the latter pursue a regular, careful, and decided course of therapeutics; in such instances, the fungus must be destroyed, the soil altered, and the lesions remedied; all which require time." Prognostic indications, which are clearly described by the author, are also afforded by the state of the scalp and of the hairs.

The ninth chapter contains General Remarks on the Relationship of Fungi. The author commences this chapter by pointing to the difference of opinion which exists on this point. In England, it is generally taught that the parasites in the several varieties of tinea are distinct one from another. Continental authorities, on the other hand—as Bazin, Hebra, Berg, etc.—are disposed to lessen the number of epiphytes, by fusing together some of the genera supposed to be distinct. Sometimes, also, we find different observers of undoubted competency, such as Virchow and Küchenmeister and Robin, ascribing the fungus found in the same disease to different genera; and hence Dr. Fox considers that

"These examples suggest an absence of criteria sufficiently important in themselves to differentiate species, and the probability, to say the least, that some of these fungi, usually regarded as distinct, are, in reality, identical in nature. Still, however, the greatest reluctance is felt in discussing this view of the case, due, no doubt, in part to the difficult nature of the inquiry, and in part, also, to the circumstance that the investigation of the subject seeks at the hand of observers more time and patience than the great majority can afford. Of late, Dr. J. Lowe has led the way towards the solution of the various points at issue in his pamphlet, *On the Identity of Achorion Schönleini with Aspergillus Glaucus and other Parasites*; and would appear to have established as actual fact the production of the latter from the former. It is unquestionably due to Dr. Lowe to state that he was the first to show by experiment this identity. (*Edin. Bot. Soc. Trans.*, vol. v, 1857.) Mr. Hogg subsequently, in 1859, confirmed Dr. Lowe's observations; and in the same year I recorded in the *Lancet* certain arguments which led me to believe that all parasites found on man possess a common origin." (Pp. 99-100.)

Dr. Fox then goes on to refer to some instances derived from the observation of fungous growths other than parasites on the animal body, which tend to shew that the same fungus varies in its form according to the influence of the agency under which it is developed; and notices, also, in support of this view, the facts observed with regard to the development of the entozoa. What is wanted is, according to Dr. Fox, a careful study of the parasitic fungi and the circumstances producing their modifications of form, in a *botanical* as well as in a medical point of view.

Dr. Fox has some remarks on spontaneous genera-

tion—a hypothesis which meets no favour with him; and in regard to it he quotes, and endorses as a clear and forcible exposition, some passages from a paper published by Dr. W. Budd in this *JOURNAL* for December 7, 1861. The chapter ends with a reference to the presence of fungi on the exterior parts of the lower animals, as demonstrated by Kölliker, Wedl, Quekett, etc.

The tenth chapter contains an elaborate examination of the Insufficiency of the Differential Criteria of the Tinea. These are commented on in order under the heads of secretion, the amount of parasite, the rapidity of its growth, differences in the seat of the disease, and differences in the microscopic characters of the fungi. The author's reasoning is in the direction of the theory that the several varieties of parasite in tinea may arise from one original form.

"Secretion means suitable pabulum; this favours the increase in the amount of parasite, and conduces to rapidity of growth; differences in the seat and microscopic characters of the fungi are to be explained in perfect harmony with fluctuations in the degree and kind of the above conditions in the way we should be led to anticipate."

The eleventh chapter contains Clinical and Experimental Evidence in favour of the theory of the identity of the parasitic fungi. Of the instances given, as having been met with by the author and other observers, a summary is furnished at pp. 147 and 148; and here, among other examples, we find noted, the similarity in some cases between favus and sycosis, of favus and tinea tonsurans; the production of tinea circinata from favus, of aspergillus by the germination of achorion, of favus (probably) from implantation of torula, of tinea circinata from tinea tonsurans, and *vice versa*, of tinea sycosis from tinea tonsurans and tinea circinata, of sycosis from torula, etc.; also, the coexistence, in the same subjects, of tinea tonsurans and tinea circinata, and of tinea circinata, tinea decalvans, and sycosis; and, in different members of the same family, of tinea tonsurans, tinea circinata, and sycosis.

In the twelfth chapter, a similar line of argument to that followed in the previous two chapters is adopted in regard to Entophytes, or the vegetable parasites found on the mucous surfaces. Dr. Fox discusses the relations of torula, sarcina, oidium albicans, mucor, aspergillus, penicillium, and leptomitrus and leptothrix. As in the case of external parasites, he finds these possessing a relation to each other, as well as to the epiphytes, which appears to him to indicate identity.

Dr. Fox, having thus argued in favour of the identity of the epiphytic and entophytic parasites, protests against a too hasty application of his views to the nomenclature of skin-diseases.

"It may be said, if the fungi be identical, why not do away with the various distinctive names of those diseases in which fungi occur, and also those of the fungi themselves? This would be, to say the least, injudicious; differences in the fungi and physical aspect of the tinea result from differences in the character of concomitants, such as soil, etc.; and the peculiar 'appellations' are best retained as guides to treatment." (P. 178.)

The last chapter is on Treatment. This must, Dr. Fox observes, be simple and definite, and must be persevered in. The aim should be: 1, to alter the soil; 2, to kill the fungus and prevent further mis-

chief; 3, to promote the re-growth of the hair; and the treatment, therefore, is both constitutional and local. Among parasitocides, Dr. Fox prefers the bichloride of mercury; and he has also tried carbolic acid, "which appears to act uncommonly well; it seems to penetrate very decidedly into the structures." The author gives an outline of the treatment of tinea in general, and of its various forms; and observes that,

"Perseverance, cleanliness, simplicity of treatment, effectual but uncomplicated, a thorough knowledge of and a constant careful search for microscopic evidence, are essential requisites towards constituting a successful practitioner, and no case is entirely hopeless. The word incurable has no place in the history of tinea." (P. 200.)

To this chapter is appended a series of formulæ for baths, vesicating parasitocides, milder parasitocides, depilatories, soothing applications, special stimulants of the scalp, and general remedies.

The very able manner, both scientific and practical, in which Dr. Fox has treated his subject, will already have been inferred from the epitome of his views which has been given above. Much more research—and no one knows this better than Dr. Fox himself, or can acknowledge it more frankly—is required, before the true relations of the parasitic fungi to each other, and to varying conditions of the body, can be determined; still, the views advanced by the author in the present volume are so clearly the result of elaborate research and of a careful weighing of evidence, as to deserve an attentive consideration from dermatologists. Whatever may become of the scientific hypothesis as to the relationship of fungi to each other, the fact that epiphytic growths constitute an important—if not the essential—element in a large class of cutaneous diseases is a practical point of much moment: for it must tend to guide us to, and confirm us in, a rational treatment of these diseases. If it happens, as is the case, that in some instances the old remedies are just those which one would select from their power in destroying vegetable parasites and preventing their growth, the coincidence affords an interesting instance of agreement between the empirical practice of the past and the rational treatment of modern times.

We heartily commend Dr. Fox's book to our readers. All may derive from it useful instructions as to treatment; and his observations on, and drawings of, the parasitic fungi will be interesting to microscopists.

ON AUSTRALASIAN CLIMATES, AND THEIR INFLUENCE IN THE PREVENTION AND ARREST OF PULMONARY CONSUMPTION. By S. DOUGAN BIRD, M.D., L.R.C.P.L.; Physician to the Benevolent Asylum, Melbourne. With Illustrations in Chromolithography and on Wood. Pp. 168. London: 1863.

DR. BIRD has presented us with an illustrated, pleasing, and well-written volume, containing facts of no small importance in connexion with consumption and climate; and, although we are acquainted with numerous places recommended for phthisis in its threatened, progressive, or matured form, we welcome a book which points out to us the merits of a new country said to possess, above all others, the true requisites and essentials for the consumptive

patient. The author forcibly tells us that the following elements are needed in a change of climate.

"It should have an alterative action so complete and powerful that it will open not only a new leaf, but a new volume, in the patient's constitutional history, and so change and modify the course of his vital functions, and more particularly the operation of his glandular and secreting system, that the probability of his blood again assuming the conditions under which tubercle was first formed will be very remote."

Dr. Bird gives us a correct idea of what true change ought to be in consumption; and, judging from his statistics, we are inclined to agree with him that in the temperate regions of the Australasian continent and islands we find peculiarities of climate, not only most remarkable in their contrast to those of any other countries, but also highly suitable for diseases of the respiratory organs. It is shewn, for example, that of all the stations of the British army, the Australasian colonies have the lowest mortality; that, while in the British Islands we have 40 per cent. dying annually from lung-disease, only 15 per cent. die from the same cause in Victoria; and that in Melbourne only 7 per cent. die of consumption, while it is fatal to 20 out of every 100 in England.

The author, who himself resides in Melbourne, finds that its mean temperature is about the same as that of Montpellier, Marseilles, Nice, Genoa, Pau, or Florence; but that it has a decided advantage over these places, in having a warmer average temperature than they have in winter, and a cooler one in summer. He states the air to be generally dry, stimulating, and ozoniferous; and to be so tempered by the prevalence of ocean-winds, that it is prevented from becoming irritating, like that of Nice or Provence. This favourable combination of atmosphere contributes largely, in his opinion, to the prevention and arrest of pulmonary consumption.

We have a cheering and graphic account of boardship life, given to us in the third chapter; and it is clear that, with our modern improvements, coupled with the Englishman's taste for comfort, the invalid has nothing to fear in the sea-voyage.

Melbourne is described as a most flourishing city. It possesses a Royal Society; a Museum of Natural History, Geology, Agriculture, and Mining; a Medical and Pharmaceutical Society; besides societies of fine arts, photographic, phonetic, etc. In 1862, it supported two Italian opera-seasons; and there are no fewer than fifty-six different newspapers and periodicals published in it yearly.

The proper time of year when an invalid should start for Victoria is in October or November; and he should make the voyage round the Cape of Good Hope, as sea-air for some weeks will probably have a beneficial effect as an introductory to a residence in Australia.

We cannot here enter fully into the sanitary condition of the colony, as regards climate, soil, and other important matters; so we refer our reader to the pages before us, assuring him that all these points have been carefully looked into by Dr. Bird. There is a great deal of information, useful to the medical as well as to the general reader, in this book, which may be regarded as a boon to the public, and as such we are confident it will command the success which it deserves.

British Medical Journal.

SATURDAY, NOVEMBER 21st, 1863.

THE COTTON FAMINE AND MORTALITY.

OUR learned associate, Dr. Noble of Manchester, has placed before us, in a paper lately read before the Statistical Society of Manchester, a very able and solid review of the effects of the cotton famine on the mortality of the Lancashire operatives. The results at which Dr. Noble has arrived are not merely interesting to the profession and cheering to the country, but are an evidence of the increasing importance which medical men attach to the correct solution of great public questions, and of the facility with which the physician, engaged though he may be with the onerous duties of daily practice, can retire into the study and at once grasp a series of general facts, and extract from them their true and absolute value, placing them in lights which no other man can, and giving to them a simplicity and clearness which the most skilled of general writers, even Buckle himself, could not effect. In the labour to which Dr. Noble has devoted himself, he had to contend at the outset with numerous doubts and difficulties, and with those unreasoning speculations and fears that are cast always in the path of the exact scholar. He had, as he tells us, to contend against a disposition which has been very generally manifested, to attribute every accidental elevation or depression in the death-rate, occurring in any part of the districts of the cotton manufacture, to the distress which the diminished supplies of the raw material have caused to fall upon many of the working population. This disposition has found expression in various societies, and in the public press; and the most diverse theories have been invented to explain supposed relations between an ascertained elevation or depression of the mortality in particular localities, and the reduced employment present in them. If there has been a high death-rate anywhere, in some particular quarter of the year, it has been suggested, or almost taken as granted, that the cause must be sought for in the distress. If, on the other hand, the mortality has in any place been under an average, speculation has been set to work to account for the fact by the present exceptional condition of the cotton-trade. It is sometimes said: "Mothers, not being so extensively employed in the mills, have attended better to their children; and in this way many lives have been probably saved." And again: "The working classes have drunk less, from the necessity of the case, and so have had amongst them less disease and less death." Again, the idea has been thrown out, that the death-rate in

the cotton districts has been reduced by a diminution of the cotton-flue in the air—a circumstance which, according to the author of the hypothesis, might have lessened the amount of bronchitis, and so have reduced the mortality from one cause of death.

We are ourselves all familiar with hypotheses such as these, excepting the last. That is so ingenious, that we know not what to do with it. Since the time when the laying down of wood pavement in the metropolis was considered and suggested as a reason for the so-called change of type in disease, a speculation so rigidly inventive has never been put before us. Deal with it we cannot: we must let it go its way, if it can, rejoicingly. It must have been a pun.

Against the various hypotheses thus advanced, Dr. Noble was compelled to raise his voice, not in mere denunciation, but in common sense argument, and in reference to a broad field of facts. In order to make his position sound and safe, he had recourse to the returns of the Manchester Registration District. This district includes the township of the City of Manchester, having a population of 185,050, and the out-townships of Blackley, Harpurhey, Failsworth, Moston, Cheetham, Crumpsall, Newton, Bradford, Beswick, Prestwich, and Great and Little Heaton; the aggregate population of these amounted, in 1861, to 58,575. The whole area included a population of 243,625 in the year 1861.

From the returns of mortality in the districts thus named, Dr. Noble estimated the annual mortality from the year 1841, and also the ratio of deaths in four quinquennial periods. From these calculations he demonstrated that the death-rate has systematically fluctuated from year to year much more than the rate of birth. In no successive two or three years did the births vary in number more than a few hundreds; whilst, as regards the deaths, there was within the same periods a range as wide as 3,500.

Now as to the causes of these fluctuations. The question is put: Whether we have any positive knowledge, any consistent idea, respecting these causes? The answer given is, that we have a great deal of information at hand for the elucidation of the point. The causes actually at work are divided into the ordinary and the extraordinary; the former depending upon temperature, season, and the like; and the latter on what is known as the epidemic influence.

We must not linger over the numerous tables supplied by Dr. Noble in illustration of the death-rates of various years; but, proceeding to the years 1862-3, we must take them and the facts they bring. They prove that, in the Ancoats district, no evidence can be found in favour of the view that the local distress

exerted any influence on the death-rate. The number of deaths, indeed, in that same year, was less than in the previous year. Nay, as the effects of the famine went on increasing as the year advanced, the mortality went on diminishing until the last quarter, when truly there was a rise; but this was a fluctuation that had been observed to take a similar course in preceding years; and, in the year immediately preceding, the rise was more marked and more decisive. The increase was fairly due to season and to epidemics.

Tables of the death-rate of the year 1863 in the Ancoats district prove that the mortality has been high; but, on examination as to the causes, it is shown that the increase has been due to the inordinate prevalence of small-pox, hooping-cough, measles, and scarlet fever. The same diseases have been proportionally prevalent in the metropolitan and other districts, and stand apart altogether from the hypothesis of physical destitution as the cause.

Whilst the increase of mortality for the past four quarters of the year is thus accounted for by Dr. Noble, he sustains in a most conclusive way that there have been present in the Manchester districts no evidences of those diseases which essentially indicate destitution. In the year 1847, when there was in truth a famine in the districts, he held an official position which enabled him to determine what were the real effects of famine. He saw these in the form of epidemic typhus and purpura hæmorrhagica, the diseases of famine. But this time there have, virtually, been none of these. Of typhus there were a few straggling cases in Manchester, and a threatened irruption at Preston, which stopped in its early course; while of the last named disease there is no evidence of any example at any point, nor, in truth, of any sign leading to the conviction that the physical health of the community has undergone the slightest deterioration. On the other hand, there is as little proof that the mortality has been, on the whole, reduced by the late calamity. The cotton famine has told on the wealthy, rendering them anxious; on the middle classes, dissipating their savings, diminishing their business, and producing gloomy forebodings; on the working classes, setting up in them an enforced idleness and diminished resources, but no actual disease, the food-requirements and other necessities having been met by the various organisations for the administration of relief.

The views that have been thus put forward by our associate are so clear, so common sense, and so obviously true, that they come to us not as of value for the present only, but of interest for the future. His paper, short though it is, will stand forth as one of the best chronicles of the physical condition of an immense population during a terrible crisis, and as a durable monument of the success of that glorious

picture of charity which last year England set forth as a lesson for all her children who are to come.

With new supplies of cotton entering freely into our ports, with four-and-a-half days' work per week in prospect, with abundant corn in the land, and more wine than ever before was cellared, we may consider the crisis as past, and for the moment the hard work of the physician-statist ended. Let us not, however, thank him the less heartily.

THE WEEK.

THE Society for the Relief of Widows and Orphans of Medical Men in London and its Vicinity has determined to apply to the Crown for a Charter of Incorporation. At an extraordinary general meeting of the members of the Society, on Wednesday last, a draft of the proposed charter was read; and the president was authorised to take the usual steps for obtaining a grant of it from her Majesty. Hitherto, the affairs of the Society have been managed under the provisions of the Friendly Societies' Act; but the effect of the granting of the charter will be to remove the necessity for such supervision, and to place the management of the institution entirely in the hands of its members.

DR. W. T. GAIRDNER, who was some time ago appointed Medical Officer of Health for Glasgow, seems very energetic in his endeavours to improve the sanitary condition of that city. Three reports have been addressed by him to the Board of Police; viz., in April, July, and October, of the present year. It appears from them, that typhus has been very prevalent; and at the date of the last report, the epidemic, so far from decreasing, continued to such an extent as to "cause uneasiness as respects the ensuing winter and spring." Cases of small-pox and scarlet fever have also of late increased in number. Dr. Gairdner enlarges much on the overcrowding which exists in Glasgow. He recommends the application of the Glasgow Police Act to the removal of this evil; but admits that in some cases the carrying out of the provisions of the Act will require more than ordinary care, "on account of the extreme wretchedness of many of the poor inhabitants, and the inadequacy of the means of parochial relief." One of the greatest difficulties with which Dr. Gairdner has to contend, appears to be the influence exercised on the public health of Glasgow by certain crowded suburbs and neighbouring places, such as Govan and Greenock, within which he has no jurisdiction. The Medical Officer of Health for Glasgow has evidently a most arduous task to perform. But he has girded up his loins to the work; and we wish him all success.

OUR obituary of this week contains the names of two well-known and worthy members of the Association—men who have taken an active part in promoting its prosperity, and whose loss, as men, all who have known them must hear of with regret. We refer to Mr. Henry Ancell of Norfolk Terrace, and Mr. Peter Martin of Reigate. Of the latter gentleman, a memoir appears at a subsequent page. Mr. Ancell died on Thursday last, at the age of 61, after a long illness—a chronic affection of the air-passages, we believe. He was well known as an honest and zealous medical politician, and was also the author of several works bearing on animal chemistry and pathology. At the time of his death, he had nearly completed a work on the *Poisons of the Blood*. Mr. Ancell enjoyed a prosperous practice, from which he was compelled to retire, by his failing health, at the end of last year.

THE Lancashire and Cheshire Branch of the Association have announced the delivery of three lectures by Dr. A. T. H. Waters, at the Medical Institution in Liverpool, on the Mutual Relations of Physiology, Pathology, and the Practice of Medicine. It is much to be hoped that the excellent example set by this Branch will be copied by other Branches.

EVERY week brings us news of the rise, or attempted rise, of another "village hospital." If these hospitals are to be worked gratuitously, all we can say is, what we have so often repeated, that the baneful results of gratuitous medical services, which have already so degraded the social position of our profession, will be still further promoted and extended. We would ask those who thus offer their services gratuitously to answer these three questions: Do they do the work out of a pure love of charity, or is it to promote their own private ends? Do they gain the respect or obtain the thanks of society for their gratuitous labours? If the work of attending the sick poor be the work of society (just as is the work of feeding the poor), why should the medical man be called upon to do the work of society gratuitously?

It is not yet, after all, a settled fact that St. Thomas's Hospital will rise on the Stangate site as proposed, any time within the next ten or twelve years. Great, and powerful, opposition has been got up against the proposition; and as there is some considerable show of reason in the opposition, it is not at all impossible that the governors of St. Thomas's, who have so long ill-managed the affairs of that wealthy institution, may find themselves in a minority when their Stangate proposition is brought for final settlement under the notice of the Lord Chancellor. The most formidable competitor for the honour of bearing St. Thomas's will, doubtless, be

the Bethlehem site; and we apprehend that the general philanthropist, who can embrace in one view the interests of the Bethlehem lunatic as well as of the St. Thomas's patient, will cordially vote in favour of the Bethlehem site. And we have no doubt, that if a judge indifferently friendly to either charity has to settle the question, that he will naturally allow this killing-of-two-birds-with-one-stone fact to weigh in his decision. St. Thomas's interests, of course, are, to the governors of St. Thomas, simply and solely limited to St. Thomas's; but those of us who live outside the local atmosphere cannot help feeling that not to place St. Thomas's on Bethlehem's present site, and thereby to send off Bethlehem's lunatics into country retirement would be a great occasion irretrievably lost. It is, at all events, a great satisfaction to know that a question of so much importance will come for final decision under the calm atmosphere of Westminster Hall, and be removed out of the close and magic circle which has hitherto presided over the fortunes of St. Thomas's. We are very glad to add, that, as we hear, the government intends to inquire into the state of the royal hospitals. The inquiry has evidently arisen out of this long-agitated St. Thomas's Hospital question. Nothing more is wanting to show the necessity for such an investigation, than the fact already stated in this JOURNAL, that St. George's Hospital, with its £16,000 *per annum*, provided for as many in-patients in one year as St. Thomas's with its £30,000 and upwards.

THE profession will be glad to learn that complete justice has now been executed upon Mr. Jordan, of the "masculine vigour" school of medicine. The name of this individual was sometime since erased from the list of the Royal College of Surgeons; and now we learn that, at a meeting of the Edinburgh College (of which Mr. Jordan was a Licentiate), the following resolution was passed on the 3rd inst.:

"It having been proved to the satisfaction of the College, that Robert Jacob Jordan, a Licentiate of this College, has been guilty of conduct unbecoming the character of a physician, in publishing, or causing to be published, an indecent work, entitled 'The Illustrated and Descriptive Catalogue of the Subjects contained in the London Anatomical Museum: to which is annexed the Guide to Masculine Vigour. By a Physician'; that the said Robert Jacob Jordan be deprived of his Licence from the College."

The result of this resolution will be that the aforesaid Jordan's name will be erased from the *Medical Register*, as he now possesses no title which qualifies him for the honour of a place on the *Register*.

THE Poor-law Board, in a letter touching the neglect of a relieving-officer in not attending to the order of the medical officer for a supply of extras to a pauper, write as follows:

"Although the certificates of the medical officers as

to the necessities required by any pauper under their care can only be considered as recommendations on their part, and not as orders which the relieving-officers are bound to obey, the refusal to comply with them involves a serious responsibility, and would only be justified under special circumstances showing the relief to be improper in the case."

This mode of conducting the Poor Laws is, unless we are much mistaken, a specimen of the causes of the cruelties and injuries which are too often, under its administration, inflicted on the poor. What earthly reason is there why the order of the medical officer should not be instantly obeyed; and how can the relieving officer be a better judge of the wants of the pauper than the medical officer? Not to give instant relief in many urgent cases, is to seal the fate of the pauper. After all, the responsibility of giving the extras must fall on some one, and why not on the medical officer, who is the only real judge of their need? To us, this systematised delay in administering what is needed for life, seems to be nothing less than an attempt on the part of the Board to prevent the pauper getting the extras required. To lecture an official, with such a regulation as this on their books, is simply a farce, and the official knows it to be so.

THE Physicians of the Brompton Hospital have just presented to the governors a Second Report of the hospital, commencing with the year 1849, and coming down to the present time, embracing, therefore, thirteen years of operations. We regret to find in it nothing about the treatment of consumption. Thirteen years of additional experience has not, it would appear, enabled the authors of it even to corroborate their former statements under this head. "The subject of treatment," we read, "has been omitted intentionally. It has been thought better to leave it in the hands of individual members of the staff, as by them detailed in their published works, or in communications to medical journals." We suppose we must conclude from this, that there is (as usual now-a-days) no agreement in opinion amongst the medical officers on the subject. We will only say, however, that to us the omission of all allusion to the treatment in such a report reads like a very great defect. It would have been something to have been told that there was no agreement in opinion on the subject. Negative information would have been more instructive than none. The Report—and a most able one it is in a statistical point of view—has been drawn up entirely by Dr. Stone; and he it is who comments on all the tables, and is responsible for the commentaries, and must have the credit of all the work. Under such circumstances, it seems to us a complete misnomer to call this a report presented by the medical officers, inasmuch as the medical officers had clearly nothing whatever to do with it, but simply signing it and laying it on the table.

The report tells of the number of patients admitted during the past thirteen years; of their age; their social condition; trades, etc.; hereditary predisposition; duration of illness before admission; and so on. We think the medical officers should at least have given us a summary of the conclusions which they consider may be deduced from these tables, so carefully compiled by Dr. Stone, and have told us, whether they confirm what is already known on the subject, or indicate something new.

THE papers of last week contain the following reports of the proceedings of non-combatant (?) officers, as the Horse Guards calls army and navy medical men.

"Sunkiang is garrisoned by a force under Dr. Macartney, late of Her Majesty's 99th Regiment. We reported last mail that he had taken a city called Fung-ching; he has since, with his force, driven the rebels out of Seedong, a large town said to have been well defended by stockades. The affair was very creditable to Dr. Macartney's force. Two hundred thousand dollars worth of loot was taken at the same time."

"The superintendent of Wellington, New Zealand, Dr. Featherstone, deserves great praise for the brave and bold manner in which he has acted. He has visited the disaffected tribes, told them plainly what steps he intended to take, and endeavoured to persuade them to be peaceable. There is no doubt that Dr. Featherstone has more than once, by his fearless frankness, prevented an outbreak. Only the other day he addressed a large meeting of Kingite natives, who were armed with guns, and in an excited state. A single incautious word or action would have been his death; but he managed to smooth their angry passions for the time, and was allowed to depart unmolested."

"The exploration of the west coast of the middle island of New Zealand is a subject of as much interest to the New Zealand colonists as were the attempts of Burke and Wills and other explorers in Australia. Dr. Hector, the provincial geologist, of Otago, is now out exploring the coast from the sea; the attempts overland having been attended with great difficulty and danger. Dr. Hector has been absent about four months, and news has just been received of him. He is reported to be at Milford Sound, one of the fine inlets which indent the west coast, suffering from a broken arm, sustained by a fall down a precipice."

M. Baudela tells us, through the *Siglo Medico*, that he ordered, for a child five or six months old, affected with a croupal cough, and fits of suffocation, fever, and enlarged submaxillary glands, a julep, and a solution of fifteen grains of nitrate of silver in thirty grammes of water. On the following day, the doctor found his patient breathing freely and calmly, and finding the lips and mouth black, discovered on inquiry, that instead of the julep, the child was given the silver-solution. The child vomited after each dose of the solution; and was, in fact, cured apparently through the mistake of the *pharmacien*.

The Academy of Sciences is still warmly debating, whether or not madness disposes an individual to pellagra.

THE LATE PETER MARTIN, ESQ.

"On the 14th inst., at Reigate, Peter Martin, Esq., surgeon, in the fifty-second year of his age."

Too early, while still in the prime of life, and at the full tide of his honourable and successful career of usefulness, Peter Martin has been taken away; and few men have left behind them so many sorrowing friends. A "simple ulcer" of the duodenum, involving nearly two-thirds of the circumference of the intestine, and producing, by its surrounding thickening, almost entire occlusion of the tube immediately below the pylorus, has done its work.

Notwithstanding the exhaustion produced by constantly recurring sickness and frequent hæmorrhage—hæmorrhage sometimes through the stomach and sometimes through the intestines—the patient made constant efforts towards rallying; until at last symptoms of peritonitis, and of a more copious hæmorrhage, set in, and the end soon came.

Peter, the son of Thomas and Elizabeth Martin, was born at Reigate on the 12th of April, 1812. The early part of his general education was conducted at home, under the careful supervision of his father, with the assistance of private tutors, and was continued later at Hazlewood, near Birmingham, and at Bruce Castle, Tottenham. At Bruce Castle, he enjoyed the advantages of the special educational system there inaugurated by the present Sir Rowland Hill, and quickly gaining the first position in the school, he maintained it to the conclusion of his stay.

Being thus well grounded in general preliminary education, he was apprenticed to his father, a general practitioner, for initiation in pharmaceutical operations and early professional reading; with opportunities, which were well used, for seeing practice. To this apprenticeship, entered upon after such preparation, and conducted so thoroughly and so conscientiously, he ever considered that he owed much of his subsequent professional success; and he was constant through life in his steady advocacy of a well ordered and honestly carried out apprenticeship system.

Proceeding to University College, London, he was one of the earliest students in its new medical classes and at the hospital attached to the College, where he enjoyed the friendship of Sir Charles Bell and Mr. Liston. His thoroughgoing habits of industry were here continued; and as a meritorious student he was rewarded with a gold and a silver medal, and with certificates of honour in all the classes he attended.

Subsequently, at Guy's Hospital, to which he turned for a wider field of observation than was then afforded at the infant University, he was a favoured and favourite student under Mr. Key.

Having completed his London career, he next proceeded to the medical school of the University of Edinburgh; and there, together with his friend Mr. Archibald Dalrymple of Norwich, was seized with continued fever, caught in the wards of the Infirmary. Under the able care of Dr. Alison, and of Mr. Dalrymple, sen., who left Norwich to attend upon his son, the two friends passed

safely through the trial, and resumed their studies; but it may be fairly questioned whether this attack of fever (he had been the subject of a former attack when a child) may not have laid the foundation in Peter Martin for the malady which eventually proved fatal to him; such a supposition, indeed, was hinted at by him during his last illness.

From Edinburgh, Peter Martin proceeded to Paris, and there enjoyed the privilege of attending the lectures and witnessing the practice of the eminent professors who then flourished at that school; among them being Dupuytren, and Louis, whose tract on the "numerical method" Martin translated and published on his return.

Having reaped the fruits of his diligent, assiduous application in these great professional schools, he returned to be associated with his father in practice at Reigate.

Quickly attracting the notice of the then Lord Monson (predecessor of the late Lord, and a passionate lover of the fine arts), he was induced to accompany his lordship to the continent as his friend and physician; and for three successive summers, devoting four months to each excursion, the two travellers visited most of the principal towns in Italy, Belgium, and Germany, studying in their progress all the most celebrated works of ancient and modern art then to be found in Europe.

With a mind thus adorned, and enlarged by the contemplation of some of the grandest scenes of nature and by all the other expanding influences of foreign travel, Martin returned from time to time to his professional employment at Reigate; but for some years later, indeed up to the time of Lord Monson's death, in 1842, he was occasionally absent with him.

Finally, however, upon his father's retirement, he settled down as his successor, and shortly after married the elder daughter of Henry Holman, Esq., of Hurstpierpoint. Following the bright example set before him in the daily life of one who survives in a green old age, at 84, to mourn and feel but too acutely the loss of his son, Peter Martin was not content to be useful to himself alone—his was a nobler nature. In the midst of the anxious and harassing duties of a large practice, he found time to study how best he might improve the condition of his fellow-workers in the medical profession (the proceedings of the Poor-law Medical Reform Committee testify to his labours in one direction), and, not less anxiously, how contribute to the intellectual and social well-being of his fellow-townsmen. Following his father (the founder of both Associations), he became Secretary to the Surrey Medical Benevolent Society, and Secretary and Treasurer of the South-Eastern Branch of the Provincial Medical and Surgical (now "British") Association; and to the ability, tact, and judgment with which he introduced and conducted the business of these bodies is doubtless owing, in great measure, their present flourishing and influential position. But Peter Martin's unselfishness and love of work were best known, because he was most intimately known, to the older inhabitants of Reigate, for whom, and among whom, he laboured so zealously. These can remember how he delighted them in days gone by with his lectures; how, in the discussion of the various

social questions which arose in the Reigate of that time, he charmed them with the universality and accuracy of his knowledge, and with the fluency and precision of the language in which that knowledge was imparted. Increasing and imperative calls upon his time, and, alas! too frequently recurring attacks of illness, had of late compelled his partial retirement from the active share he once took in all the business of the day, and allowed him only now and then to reappear upon the scene, with all the freshness, with all the quickness of apprehension, with all the accuracy of perception, and with all the modest decision, of his former years.

And it might have been well for him (who shall now dare say it would have been better for him?) had he earlier withdrawn from all but the necessary duties of his position. But his sense of duty prompted him to continued exertion; and his unselfish nature allowed too little consideration for his own safety to interpose.

After suffering at intervals spread over a long time from symptoms of gastric disorder, symptoms which disappeared entirely for many months together, leaving him apparently in the enjoyment of perfect health (two years ago he was, for him, stout and ruddy), he was harassed by a rapid succession of anxious cases, and his strength soon began to decline. His condition, however, was no more than usually alarming; until, suddenly, during the month of last June, vomiting for the first time set in; and, altered blood appearing almost immediately in the matters vomited, the evidence of the existence of serious organic disease became but too clear. Improvement quickly following upon his consenting to make himself the invalid, he availed himself of the kind offer of a valued friend, who placed his house in the Isle of Wight at his disposal, to absent himself for awhile from home. Very soon after his arrival in the island, however, his health again broke down; and he returned with all his symptoms aggravated. Another improvement resulting from perfect repose, he paid a visit to Hurstpierpoint, where he continued to gain ground; and so much better, indeed, did he become, as to be very anxious to return to his professional duties. This not being considered desirable, his old fondness for travel was invoked, to reconcile him to a temporary absence from harder work; and he left, in company with his son and brother-in-law, for the continent. He had got no farther than Brussels, however, when symptoms of obstruction again set in; and, after a severe attack of sickness of three days duration, he returned to Folkestone. From Folkestone, where he was again attacked, he was removed as soon as was practicable to Reigate, and from that time never left his bed. Nursed through the whole period of his long illness with untiring endurance and marvellous ability, his inherent and hereditary vitality was so well husbanded as to enable him to make repeated attempts to rally. But meanwhile his disease was making progress towards a fatal termination; until at last, in the enjoyment of a clear unclouded mind, this enlightened and accomplished man closed a life of usefulness and honour at the early age of fifty-one, leaving behind him a widow and seven surviving children.

Few men, it was said at the beginning of this notice,

have left behind them so many sorrowing friends. And this is no mere figure of speech. Gifted by nature with an attractive person; with all good qualities, intellectual and social, looking out through his clear blue eyes, and beaming in his expressive face and winning smile, there was that about him which to the merest stranger was irresistibly attractive. But this was not all. By those who had the privilege of knowing him intimately will be long cherished the remembrance of those more solid attributes of that inner life to which the access was not so easy; and when to these are added his uncompromising honesty, his fearless candour, and his gentle charity, all nurtured and harmonised and hallowed by faith, a more complete and noble character could scarcely be imagined or portrayed.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
BATH AND BRISTOL. [Ordinary.]	Victoria Rooms, Clifton.	Friday, Nov. 27, 7 P.M.

EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting will be held at the Fountain Hotel, Canterbury, on Thursday, November 26th, at 3 P.M.

Dinner will be ordered for 5 o'clock.

THOMAS BOYCOTT, M.D., *Hon. Secretary.*
Canterbury, November 2nd, 1863.

LANCASHIRE AND CHESHIRE BRANCH.

THE first Course of Lectures instituted by this Society will be delivered at the Medical Institution, Mount Pleasant, Liverpool, by A. T. H. Waters, M.D., M.R.C.P., on Monday, November 23rd, Monday, November 30th, and Monday, December 7th, at eight o'clock p.m. Subject: "On the Mutual Relations of Physiology, Pathology, and the Practice of Medicine."

Lecture 1.—Physiology in its Relations to Pathology and the Practice of Medicine—On the early Recognition of Disturbed Function in Relation to Disease—The Reflex Function of the Nervous System, in Relation to Pathology, Diagnosis, and Therapeutics; its Bearings on certain Organic and other Diseases, etc.

Lecture 2.—Pathology in its Relations to the Practice of Medicine—On certain Pathological States, as the Result of Impaired Nutrition, consequent on the Abyeance or Imperfect Performance of Physiological Action—Diseases of Degeneration attacking the Heart, Lungs, etc.—Sudden Death, in Relation to Diseases of the Heart, etc.

Lecture 3.—On the Pathology and Treatment of certain Forms of Delirium—Therapeutics—The Physiological and Therapeutic Action of Alcohol—The present state of Therapeutics, and the Direction which Therapeutic Inquiries should take, etc.

JAMES VOSE, M.D., *President.*

November 12th, 1863.

SHROPSHIRE SCIENTIFIC BRANCH: ANNUAL MEETING.

"*Felicitas infelicibus adjuvante scientiâ.*"

THE annual meeting of this Branch was held on October 27th, at the George Hotel, Shrewsbury, under the presidency of WILLIAM EDDOWES, Esq. On taking the

chair, Mr. Eddowes made a few remarks, and several letters were read from members regretting their inability to attend the meeting.

The minutes of the last meeting were read by the Secretary, and signed by the Chairman.

President's Address. An able and practical address on the progress of medicine and surgery, especially relating to cancer, was then read by the President, after which an animated discussion followed, and he was requested to send it for publication.

Papers. The following papers were read:—

1. Calculus passed through a Fistulous Opening near the Rectum. By W. Newman, M.D.

2. Two Cases of Secondary Hæmorrhage, occurring in the Salop Infirmary: with Remarks. By W. Eddowes, jun., Esq.

Evening Meetings. It was proposed that the evening meetings of this Branch take place quarterly; and that the next be held on some convenient day in January 1864.

Officers. The officers for the ensuing year were chosen, and three new members added, making six in the present year.

Dinner. The members and friends then adjourned to dinner, at which seventeen were present. The President presented the champagne.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

A GENERAL meeting of the above Branch was held on Thursday, November 12, in the medical department of Birmingham Library. In the absence of the President, T. BOISRAGON, M.D., took the chair. There were present fourteen members.

Paper. Some observations on Trusses: with a Description of a new one recently invented by Mr. T. P. Salt. By Oliver Pemberton, Esq.

After the conclusion of the paper and the discussion, Mr. Salt explained the principles of his invention, and replied to the various suggestions and inquiries of the members.

Reports of Societies.

CAMBRIDGE PHILOSOPHICAL SOCIETY.

MONDAY, NOVEMBER 9TH, 1863.

Professor THOMPSON, in the Chair.

RESULT OF EXPERIMENTS ON THE GROWTH OF THE JAW.

BY G. M. HUMPHREY, M.D., F.R.S.

It had been shown by the author in a former paper read before the Society, as well as by other physiologists, that the enlargement of bones does not take place by interstitial growth, like that of other structures, but solely by addition at their surfaces, edges and ends; the addition of osseous matter, at some parts, being usually attended with more or less removal at others, so as to maintain the proper shape and proportions of the bone. The object of the communication was to show in what manner this principle is carried out in the jaws so as to make room for the permanent teeth which are both larger and more numerous than those of the first dentition.

It was shown with regard to the lower jaw, that the five middle, or front permanent teeth (the two incisors, the canine, and the two bicuspids) occupy precisely the same space as their predecessors of the first series (the two incisors, the canine, and the two primary molars); the third primary molar, which is a permanent tooth

(the first permanent molar), occupying the same position throughout life; and all the additional teeth of the permanent series (the second and third molars) are added to the hinder part of the jaw. Hence the *fore* part of the arch of the jaw, the part containing the primary teeth, undergoes very little change of size throughout life, being nearly as large in the new-born infant as in the adult; and the teeth which occupy it in the adult require only the same space as their predecessors in the infant. The jaw is deepened at this part and strengthened by addition, beneath, in front, and behind; but no alteration in the shape or size of its arch takes place.

How is the space gained in the *back* part of the jaw for the additional teeth, viz., the three molars? To ascertain this with certainty the author made experiments upon young pigs, passing wires round the condyloid and coronoid margins of the ascending portion of the jaw, and killing the animals at variable periods afterwards. The result of these experiments, which were detailed at the meeting, was to prove that the body or dental part of the jaw is lengthened by gradual addition to the hinder or condyloid edge, and by absorption of the anterior or coronoid edge of the bone. The molar teeth, when first formed, are placed, successively, quite beneath the coronoid process; and by the absorption of the anterior edge of that process they are subsequently exposed, and a clear surface is left for them.

The lengthening of the bone by addition to its hinder edge is accompanied by a gradual shifting of the periosteum and other soft parts, along the surface of the bone, towards that edge. Thus the proper relations of the soft parts to the bone are maintained (as explained, with reference to the long bones, in a paper by the author, published in the *Transactions of the Medico-Chirurgical Society*, vol. xlv); and the mental hole is carried a little backwards and acquires a slant from within outwards and *backwards* in consequence of the traction of the nerve upon it during the shifting of the soft parts upon the bone.

The additional molars grow up in the same line with the primary teeth; so that, although the horns of the alveolar arch are lengthened, and the arch is rendered more elliptical; it is not widened. The widening of the jaw, in correspondence with the increasing width of the base of the skull, takes place behind the alveolar arch, in the ascending portion, and is effected by progression of absorption on the inner, and addition to the outer surface of this part.

In the upper jaw the course much the same. The fore part of the dental arch is but little altered. The permanent molars, developed behind and above one another in the "tubercle," descend, and the space for them is formed by the backward growth of the tubercle, and by changes in the pterygoid processes in the sphenoid corresponding with those in the coronoid processes of the lower jaw.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, NOVEMBER 2ND, 1863.

B. G. BABINGTON, M.D., F.R.S., in the Chair.

ON THE PRESENT POSITION AND PROSPECTS OF EPIDEMIOLOGICAL SCIENCE. BY E. W. RICHARDSON, M.D.

[This paper will be published in the JOURNAL.]

NOTICES OF THE EPIDEMICS OF 1719-20 AND 1759 IN PERU. BY ARCHIBALD SMITH, M.D.

Dr. SMITH communicated to the Society several curious historical notes on Peruvian epidemics in the past century. A highly interesting narrative was given of the prevalence of the epidemic of 1719-20 in Cuzco, derived from the manuscript of an old Cuzco chronicler, and originally published in the *Lima Medical Gazette*.

In the brief discussion which followed the reading of

this paper, Sir Ranald Martin and Dr. Milroy took part. Dr. Milroy directed attention to the similarity existing between several of the symptoms of the epidemic of 1719-20 as described by the old Cuzco chronicler, and the symptoms of the Pali plague.

Correspondence.

IRIDECTOMY.

LETTER FROM J. W. HULKE, ESQ.

SIR,—The questions that have arisen in the discussion you have invited on iridectomy: 1. What is the principle on which iridectomy is performed in glaucoma? 2. In what cases is iridectomy indicated?—admit of easy reply.

1. The principle on which iridectomy is performed in glaucoma is the relief of excessive ocular tension. 2. Iridectomy is indicated (with limitations to be presently stated) wherever such excessive tension exists.

Now, excessive tension of the globe is the prominent feature in the glaucomatous process; it is the efficient cause of the blindness and of the disorganisation of the ocular tissues. The proof of this lies in the arrest of the process, and restoration of sight when the over-tension is permanently relieved. Experience has long ago abundantly demonstrated, that iridectomy can effect this relief; but, as your correspondents require it, I shall supply cases in confirmation. Before doing this, the prevalent misconceptions respecting glaucoma oblige me, in order to avoid being misunderstood, to sketch its outlines as known to the modern school of ophthalmic surgery.

To commence with the morbid anatomy: in 1858, H. Müller demonstrated by dissection an excavation of the intraocular end of the optic nerve, for shortness called optic disc. (*Archiv. für Ophthalm.*, Bd. iv.) This was confirmed by other anatomists; amongst them, by myself. (*Ophthalmic Hospital Reports*, No. xiii, Oct. 1860; where vertical sections of different kinds of excavation of the optic disc are figured.) The hollow has steep abrupt sides, and reaches the circumference of the disc. Its bottom soon comes to lie behind the plane of the choroid, and the *lamina cribrosa* presents a concave, instead of slightly convex, surface towards the interior of the globe. In the advanced stage of the disease, the excavation extends laterally, and undermines the border of the sclero-choroidal aperture. These characters at once distinguish the excavation of glaucoma from the small natural hollow at the centre of the disc left by the bending aside of the optic nerve-fibres as they pass to the retina (the physiological depression, as it has been termed), and from the gently sloping hollow produced by the simple wasting of the nerve-fibres. The indications of intraocular pressure are so unmistakable in the glaucomatous hollow, that they can proceed from no other agency; no traction from behind in consequence of shrinking of the trunk of the optic nerve, as some suppose, could produce the peculiar features of the hollow.

The other morbid appearances in the optic disc and retina are conveniently classed as those which concern the blood-vessels and those presented by the nervous and connective tissues. The veins at the optic disc appear to have a smaller calibre than in the retina; and, as they follow the surface of the hollow, their direction is suddenly changed at the point where they pass from the retina round the sharp brink of the hollow. In the retina, the veins are swollen, and their course is tortuous. The capillaries are dilated; sacculæ are formed on them; and these, with the capillaries on which they sit, are often found crammed with blood-corpuscles. Small ex-

travasations of blood, traceable to ruptures of these sacculæ, are not infrequent; they are confined to the inner layers of the retina, or burst into the vitreous humour. Such apoplexies are more common in the inflammatory forms of glaucoma. (The sacculæ are figured in a paper on Glaucoma written by me in 1857, *Medico-Chir. Trans.*, vol. xvi.) The obstructed capillaries and sacculæ sometimes wither; they become granular and opaque, contain minute oil-beads and small masses of hamatoidine, and the parts of the retina supplied by them acquire an opaque stone-grey appearance. In some eyes (mostly in chronic glaucoma), I have found the coats of the arteries hypertrophied. All this indicates an unusual resistance at the optic disc to the efflux of blood through the vena centralis, and consequent increase of the blood-pressure on the inner surface of the vessels which lie in the order of the circulation behind this spot.

The other changes in the retinal tissues may be summed under atrophy. The nerve-fibres and ganglion-cells forming the inner layers waste first; the rods and cones are more enduring, and are often found comparatively intact when the inner layers are withered.

The vessels of the choroid, particularly the veins and capillaries, are greatly dilated. Dissections have, however, shown that capillary hæmorrhage is less common than has been supposed. One reason of this may consist in the closeness of the capillary net, owing to which the interspaces become nearly obliterated when the vessels are swollen, and this allows the walls of adjacent vessels to mutually support each other, whilst the elastic lamina affords an uniform support in front. (In the *Ophthalmic Hospital Reports*, No. xiii, I have figured some of these dilated choroidal capillaries.) Extravasations of blood from the veins into the stroma are occasionally found.

Congestion and œdema, in which the ciliary body and iris participate, are then the chief morbid appearances in the choroid. In all my dissections of glaucomatous eyeballs, I have never seen the serous effusion between the choroid and retina which a recent authority describes; and I doubt its occurrence.

Where acute inflammation has existed, the interstices of the sclerotic are filled with serum; but, in other cases, they are occupied with fat-globules, and granules whose solubility in acids show them to be bone-earth.

The vitreous humour is clear and colourless, afterwards clouded; or has a yellow tinge in transmitted light when there are capillary apoplexies in the retina. This tinge becomes orange when blood has burst into the vitreous. The small clots are often traceable to the spot where the limiting membrane and the hyaloid capsule have been torn. But the most striking circumstance connected with the vitreous humour is its solidity; it offers a remarkable resistance to the knife, and does not quickly run off when the eyeball is cut across.

When the vitreous humour is stained, the lens shares the tinge; and the greenest lenses I have ever seen in the living eye have been those which on dissection I found most deeply stained with blood-pigment.

Summed briefly, the principal finer anatomical changes in glaucoma consist in a peculiar excavation of the optic disc, and congestion of the choroid, ciliary body, iris, and retina, with increase of the vitreous humour. The first is clearly due to the agency of pressure on the surface of the disc. It has been objected that if this were so, it ought to disappear when the pressure is removed. The objection fails, because the hollow diminishes if the pressure have been removed before it has produced atrophy of the nervous tissue. The congestion of the vascular coats is at once the cause and the effect of the increased ocular tension. The increased quantity of blood in the eye increases its tension, and the increased pressure on the inner surface of the globe diminishes the sclerotic canals (their oblique direction favours this) by which the vasa vorticosa emerge; this obstructs the

venous circulation, and augments the distension of all the vessels lying behind the obstruction. The retinal congestion is similarly produced by the abrupt change in the direction of the veins at the margin of the excavated optic disc and by their compression against the margin; and it contributes, though in a much smaller degree than the choroidal congestion, to heighten the ocular tension.

To these finer alterations (which concern the earlier stages, those belonging to the stage of glaucomatous degeneration being atrophic) must be added the rougher anatomical alterations in the front of the eye: advance of the lens and iris and flattening of the cornea, also effects of over-tension.

What are the signs of 'glaucoma in the living eye?

The limits of a letter do not allow the description of the several forms in which glaucoma come before us in practice, as a primary affection, or complicating an already existing disease. They may be roughly arranged in two classes, comprising: 1. Cases (apparently) unattended with inflammation (glaucoma simplex vel sine ophthalmiâ, of Donders; amaurosis with glaucomatous excavation of the optic disc, of Von Graefe); and 2. Cases attended with easily recognisable signs of inflammation (glaucoma cum ophthalmiâ, of Donders; glaucoma with intermittent inflammation; chronic inflammatory glaucoma; acute inflammatory glaucoma; glaucoma fulminans (peracute inflammatory), of Von Graefe.) All possess certain common features which show the essential identity of the process, and in all four stages or periods are generally recognisable: 1. A precursory period; 2. A period in which the glaucoma is fully developed (glaucoma evolutum, confirmatum, of Von Graefe); 3. A period when quantitative perception of light has been some time quite lost (glaucoma absolutum, Von Graefe); 4. The period of glaucomatous degeneration, (Von Graefe).

1. The *precursory period* is rarely absent; but its duration is very variable, and its symptoms are sometimes so little prominent that they escape the attention they deserve. It is marked by increasing presbyopia (owing to the larger corneal curve); the appearance as of a rainbow or halo round a candle-flame; *intermittent* dimness of sight; slight hardness of the eyeball; a lighter pressure with the finger on the eyeball produces pulsation in the arteria centralis at the optic disc, than would be requisite for its production in a healthy eye; fulness of the anterior ciliary and muscular veins; a sluggish pupil; vague *intermittent* pains in the forehead and temples; and commencing contraction of the field of vision. In cases unattended with inflammation, the precursory gradually slides into the period of full development; in acutely inflammatory cases, the transition is sudden.

2. The *period of developed glaucoma* is marked by notable hardness of the eyeball; pulsation of the arteria centralis, spontaneous or producible by the slightest pressure (pulsation of the arteria centralis, first noticed by Jaeger in diseased eyes, was adduced by Von Graefe as pathognomonic of glaucoma); excavation of the optic disc, shown by the abrupt bending of the veins at the edge of the hollow—where the hollow is deep, their continuity seems to be broken, and a lateral displacement of the disconnected portions to have occurred; continuous and increasing obscuration; progressive contraction of the field of vision (generally this begins at the inner part of the field and proceeds obliquely, the upper and outer part disappearing last, and the temporal side of the retina suffering first); cloudiness of the vitreous and aqueous humours; dulness and anæsthesia of the cornea; a dilated and motionless pupil; increased pain in the temples and forehead, and tensive pain in the eyeball (this varies much, and is most severe in glaucoma with acute inflammation.)

4. In the period of *glaucomatous degeneration*, the

iris is a mere narrow ring; the lens is cataractous; all the ocular tissues are more or less disorganised. The eye presents the familiar features of the glaucoma of the old school. (The pulsation in the artery and the obscuration, the flattening of the cornea and the ciliary pains, are each and all results of excessive ocular tension; the first are producible in the healthy eye by pressure with the tip of the finger.)

In confirmation of the proved efficacy of iridectomy to relieve the over-tension which paralyses the retina and brings about the disorganisation of the eyeball in glaucoma, I submit the annexed cases to the impartial judgment of the profession. They are purposely chosen from hospital practice, because the publicity which attends this is an additional voucher for their genuineness.

None of its advocates claim for iridectomy the universal applicability and infallibility which some have laid to their charge. None suppose it can restore sight which has been long extinguished, or renew an eyeball in the stage of glaucomatous degeneration. In the fourth stage it does not always certainly relieve pain. The extent of irreparable structural change existing at the time of operation is the measure of its usefulness in any given case. This is the explanation of the more perfect restoration of sight in acute inflammatory cases (in which in a few hours the tension rises so high as to paralyse the retina), where a timely iridectomy anticipates structural change, and of the less complete recovery in subacute and chronic cases where pressure and atrophy proceed with nearly equal step; but, even here, though no improvement of sight follow, the glaucomatous process is generally arrested, and the amount of existing sight preserved.

I do not profess to offer any explanation of the way in which iridectomy permanently relieves over-tension. Granted that this is not yet sufficiently explained, whilst the fact remains that iridectomy controls a confessedly otherwise incurable disease, their culpability is great who refuse their patients its benefit.

The practice of iridectomy in recurrent iritis is not new, as might be inferred from your second article. It was in recurrent iritis that Von Graefe first practised it (his inducement being the observation, that the tendency to subsequent attacks is proportioned to the extent to which the pupillary edge remains adherent to the lens and the communication between the chambers interrupted); and it was precisely the correlation of some forms in which the choroid participates, irido-choroiditis and glaucoma, which induced him to adopt it in the latter.

In the course of the discussion iridectomy has been spoken of as *nothing more than the old operation for artificial pupil by excision*, which consists in making a puncture in the cornea, and excising a piece of iris proportioned to the size of the desired pupil, with respect to the corneal speck, etc., necessitating its performance. But the kind of *iridectomy practised in glaucoma is something different*; the portion removed comprehends a *wedge-like segment of iris in its entire breadth* from the pupil to the attached great circumference (its size is regulated by the degree of tension to be relieved); for this the anterior chamber is opened at its extreme circumference, and the incision is begun in the sclerotic.

CASE I. *Acute Inflammatory Glaucoma: Second Period: Iridectomy.* A needlewoman, aged 30, whose mother had lost both eyes from glaucoma, was admitted into the Royal London Ophthalmic Hospital, January 20th, 1860, with acute inflammatory glaucoma of her right and only eye. (The left eye had been accidentally injured in a squint operation fourteen years before, and was shrunken.) The eyeball was very hard, much congested, and painful; the pupil was dilated, and almost motionless. A haziness of the humours prevented an accurate exploration of the fundus oculi; but the retinal veins were

turgid, and there was slight excavation of the optic disc. The field of vision was much contracted, particularly below; and her vision was so blunted, that she could not make out No. 20 test-type (eight-line Roman), the short letters of which are seven-eighths of an inch tall. For two years, she had been liable to occasional obscurations and a rainbow round the candle-flame. I performed iridectomy, removing the upper and outer seventh part of the iris. January 24th. The congestion was less; the tension of the globe natural. She read the smallest type on her bed-ticket (about No. 10 test-type). Jan. 31st. The redness of the eye-ball was gone. Her sight was improving. She was made an out-patient. Feb. 10th. The tension continued natural. She read No. 2. Feb. 17th. She read No. 1 (brilliant). July. She read No. 1, and was supporting herself by needlework. The optic disc was no longer excavated.

CASE II. *Subacute Inflammatory Glaucoma of the Left Eye: Fourth Period: Acute Inflammatory Glaucoma of the Right Eye: Second Period: Iridectomy.* A needlewoman, aged 64, sought relief at the Royal London Ophthalmic Hospital, July 1859, for intolerable pain in her left eye, which had been quite blind several months. She was a pale, nervous woman; had had a large family; and often stitched from 9 A.M. till 10 o'clock at night. Early in the year, she had been in St. Thomas's Hospital with erysipelas; and while there had fever. At this time, the left eye became exceedingly painful; its sight failed, and in four months was quite lost. When she came under my care in July, the cornea of this eye was dull and vesicated; the pupil was widely dilated and fixed. The ciliary region was congested; the anterior ciliary and muscular veins were particularly swollen and varicose. The globe was very hard, and excessively painful. The right eye was occasionally painful and dim, and sometimes the candleflame seemed to her to have a rainbow round it. Iridectomy was performed in the left eye, in the hope of relieving the pain. On July 26th, the redness had disappeared. She had none of the former severe pain, but only an occasional ache, and expressed herself much relieved. She was now anxious about her right eye, which was painful, and soon became tired. Its pupil was sluggish; its anterior chamber was small. The anterior ciliary veins were swollen. At the distance of one foot, the field of vision was scarcely as large as the palm of my hand, and she could with difficulty pick out letters in No. 16 test-types (two-line great primer). The globe was a little hard; there was commencing excavation of the optic disc; a very slight pressure caused pulsation of the vena and arteria centralis. Foreseeing the near approach of an acute attack, I strongly urged her to come into the hospital on Friday (for she had been made an out-patient), and let me anticipate it by an iridectomy. When the time came, she was frightened, and stayed away. On Saturday night, she was seized with violent pain in the eyeball, attended with severe headache, rapid and complete blindness, retching, and great prostration. On Sunday, there was a slight remission, she could just distinguish light from shade. On Tuesday, when she was brought to the hospital, the great hardness of the globe indicated excessive ocular tension. The cornea was dull; the pupil dilated and motionless; the ciliary region red, and encircled by arches formed by the swollen anterior ciliary and muscular veins. She had not the slightest power of perceiving objects (qualitative perception), and had only a minimum quantitative perception of light (just distinguished light from shade). A large segment of iris, in its whole breadth, was removed by iridectomy. August 5th. She was greatly relieved. She had a little pain the previous night, but had none now. She could see, but could not yet count my fingers. From this time she made steady progress. On the 23rd, she could count my fingers at the distance of three feet, and could tell the back of the hand from the palm.

Sept. 23rd. She found her way alone to the hospital; she was continuing to improve. Nov. 1st. With a sixteen-inch lens (such as a person at her age might require) she read No. 10 (pica) correctly, and was again at needlework.

CASE III. *Acute Inflammatory Glaucoma: Second Stage: Iridectomy.* A spare, wiry, old sailor, aged 66, who "had never known a day's illness", was attacked with severe pain in the right eyeball, which became very red. In a few hours he could hardly see his hand. On the third day there was a remission. Four weeks and four days after the attack, he came to the Royal London Ophthalmic Hospital. At that time, the eyeball was very hard and very red; the pupil dilated and motionless; the cornea so dull that the ophthalmoscope could not be used; the field of vision much contracted; at its centre, he could just make out letters in No. 20 test-type (eight-line Roman). There was constant severe pain, not so violent as at first, but paroxysmally aggravated. I performed iridectomy. On the third (three days afterwards), the hardness had much diminished, but not quite disappeared. He had soreness, but the former severe pain was gone. 11th. The cornea was brighter; the redness was fading. He had no pain. His sight was improving. The ocular tension was normal. 14th. He read No. 16 quickly. 22nd. The tension continued normal. With convex spectacle, of twenty inches focal length (to correct his presbyopia), he read No. 6. 26th. He continued as at the last date. He was now obliged to leave with his ship, or I would have iridectomised his left eye, which began to exhibit precursory symptoms of glaucoma.

CASE IV. *Subacute Inflammatory Glaucoma of the Right Eye: Second Stage: Iridectomy.* An artisan was seized with pain in the right eye, which lasted continuously with great severity for a couple of days, and then became remittent. The sight became very dim. Three weeks after this, he came under my care at the Royal London Ophthalmic Hospital. The eyeball was hard; the pupil large and motionless; the cornea dull, its surface uneven, its sensitiveness much blunted. The anterior ciliary veins were swollen. He made out letters in No. 20 test-type, and counted fingers at four feet. The inner half of the field of vision was much contracted. March 1st. Iridectomy was performed. 5th. He had no pain; the redness was subsiding. He read No. 10. June 28th. He read No. 10 with spectacles. There was no pain, nor redness.

CASE V. *Glaucoma with occasional Inflammation: Chronic Inflammatory Glaucoma: Second Stage: Iridectomy.* A short, stout woman, aged 50, came under my care at the Royal London Ophthalmic Hospital, May 3rd, 1862, for chronic glaucoma. The eyeball was hard; the pupil large and sluggish; the anterior chamber small; the cornea slightly dull; the vitreous humour cloudy; but the fundus oculi could just be seen with the ophthalmoscope. The optic disc was excavated in a marked degree. The field was contracted. She could just pick out letters in No. 10 type (four-line condensed). She had had an occasional fret in this eye for three or four years, and had several times increased the strength of her spectacles. During the preceding twelve months, her sight had failed greatly. A large iridectomy was performed, upwards. May 6th. The media were brighter, and the ocular tension less. 17th. She was made an out-patient. Tension was still slightly in excess. June 10th. The eye felt stronger. She read No. 20. In July 1863, she read No. 16. The tension was normal. The optic disc was less deeply excavated.

CASE VI. *Glaucoma without Inflammation: Second Stage: Iridectomy.* A night watchman at the river-side, a robust, healthy-looking man, was occasionally troubled with pain in the right eyeball, generally whilst on his watch; and its sight grew dim, and objects lying to his right were better seen than those directly in front. In

December 1862, three months after the commencement of these symptoms, he came under my care. There were no outward appearances of inflammation. The ocular tension was slightly increased. The pupil was large and inactive. In the upper and outer part of the field, he could count fingers; but could not decipher the largest type, the letters appearing merely as black lines on the white page. Iridectomy was recommended, but the patient's employers dissuaded him from having it performed. The tension then rather rapidly increased, till the globe became very hard; and the obscuration progressed. The excavation of the optic disc grew deeper. Jan. 16th. He desired iridectomy, which was performed; and he was made an out-patient on the 21st. The wound had healed; the tension of the globe was natural; the sight was slightly improved. Oct. 24th, 1863. He read No. 20. Tension was natural. The excavation of the optic disc was less deep.

The only remark I shall add is, that these are average cases in the respective forms of glaucoma, and fair illustrations of the effects of iridectomy.

I am, etc., J. W. HULKE.

10, Old Burlington Street, November 9th, 1863.

SIR,—Will you allow me, through your pages, to ask of Mr. Bowman an explanation of a difficulty which occurs to me in reference to the operation of iridectomy? The condition of the eye requiring the performance of iridectomy appears very common. Mr. Bowman tells us that he every week sees cases in which he has to lament the ignorance of the profession generally on this subject; and besides this, if I understand the matter rightly, iridectomy is now an operation of daily performance in the hands of some of our leading oculists. The operation, moreover, appears to be absolutely necessary to save the eye. Now, if such is the case, the patients in whom the operation of iridectomy is said to be required must be very numerous; and I suppose such patients must at all times have been very numerous; and, if so, how comes it that, before the days of iridectomy, complete glaucoma was comparatively a rare disease? We ought, as it seems to me, to have met with incurable glaucoma at every corner of the street, if iridectomy, as is now asserted, is the only means for arresting the progress of the disease which leads to incurable glaucoma.

I am, etc.,

A SURGEON.

THE LARYNGEAL ÉCRASEUR.

LETTER FROM GEORGE D. GIBB, M.D.

SIR,—In Dr. Walker's communication upon the Laryngoscope in your last number, he refers in a foot-note to my laryngeal *écraseur*, and supposes that I must have forgotten or overlooked his—to me most interesting—communication in the *Lancet*, of November 1861. I can assure him I have done neither; and I willingly concede to him all the credit he so justly deserves for what he has done. It must be observed, however, that the *principle* of the instrument was in my mind long before his paper was published—of using a loop of wire if ever I were required to remove a growth from the larynx, as preferable to the great bulky continental instruments. When an opportunity presented itself, I saw that Dr. Walker's instrument would not at all answer my purpose, and had one constructed to take up the *smallest possible room in the larynx*; and without the necessity of having two tubes as in Dr. Walker's; this will be readily apparent on comparison. In fact, his instrument was, as he himself states, a Gooch's double silver cannula bent at a suitable angle, and the difficulty of its application he has extremely well shown; whereas my own, consisting of a single steel limb grooved on the back, from its slender

form, little bulk, and easy manipulation with a single steel wire, was applied without any difficulty, as the many gentlemen can testify who were present at my operations.

The difference between Dr. Walker's instrument and mine, is as great as between a man's nose and his ears; for in the nose there are two channels, as in Dr. Walker's instrument, and in the ears but one, as in mine. His instrument would have been utterly impossible to use in such cases as have been submitted to me for treatment; but it answered in his case because the growth was really in the larynx *above* the right vocal cord, and attached to the surface of the epiglottis, a spot comparatively easy of access. Whereas in some of mine the growths were below, between, or on the edge of the cords, and rather small, and therefore much more difficult to remove. Dr. Walker was the first in this country to remove a growth from *above* one vocal cord, and myself the first to remove one from *below*; or to place it in another and perhaps more agreeable light to him, he was the first to remove a growth from the larynx with the aid of the laryngoscope, and I was the second.

I regret there should be any unpleasant feeling or misapprehension about these instruments, and can assure Dr. Walker that I shall do him every justice in the new edition of my work on the *Throat and Larynx*, in the course of preparation.

I am, etc., G. D. GIBB.

Portman Street, London, November 16th, 1863.

A QUERY FOR THE HELMINTHOLOGIST.

SIR,—It has often occurred to me that the utility of the JOURNAL might be considerably increased, if the members of the Association would employ it to a greater extent than they now do, as the medium through which they might lay before their professional brethren those doubts and difficulties which must occasionally beset most of them.

I am living in a retired village, with few scientific friends or books to consult. May I venture to ask some of my more favoured medical brethren to relieve my mind on the following points?

1. A few months ago, a London physician of some eminence suggested in the JOURNAL, that tapeworm was probably (or possibly) propagated in the following way. Children were assumed to pick up the mature joints of the worm ejected by their suffering parents, and to eat these joints, just as they would devour shrimps, with their bread and butter. Is there any evidence that the ova thus devoured by these unhappy children could become developed in their intestines into tapeworm? If developed at all, would they not of necessity make their way out of the intestines into the tissues, where they would appear as *cysticerci*? If, then, tapeworm is to be propagated in this way, is it not necessary that the children infested with the *cysticerci* should be *eaten raw*?

2. A somewhat similar difficulty suggests itself to my mind in reading the discussion, reported last week by your Liverpool correspondent, on Dr. Skinner's case of tapeworm. In the course of that discussion, a gentleman remarked that he had frequently seen tapeworms in the bodies of calves and lambs. Unless *cysticerci* occasionally exist in the milk (and I am not aware that they have ever been found in that fluid), how did these sucking animals obtain their tapeworm?

I am, etc.,

VERS SOLITAIRE.

Nov. 3rd, 1863.

PROPORTION OF THE MEDICAL PROFESSION TO THE POPULATION. The last census shows that there are in England and Wales, for about every 1712 persons one surgeon or general practitioner; for every 5552 one physician; and for every 3505 one dentist.

Medical News.

UNIVERSITY OF LONDON. 1863. Candidates who have passed the Second M.B. Examination.

First Division.

Axford, William Henry, King's College
 Bastian, Henry Charlton (M.A.), University College
 Beddard, James, Guy's Hospital
 Clarke, Julius St. Thomas, Guy's Hospital
 Edis, Arthur Wellesley, Westminster Hospital
 Gwyther, James (B.A.), Manchester Royal Infirmary
 Harries, Gwynne Henry, King's College
 Hicks, John Wale, St. Thomas's Hospital
 Jones, John Talfourd, University College
 Lancaster, Henry Thomas, St. Bartholomew's Hospital
 Money, Frederick John, St. Thomas's Hospital
 Pye-Smith, Philip Henry (B.A.), Guy's Hospital
 Rivington, Walter (B.A.), London Hospital
 Roberts, Frederick Thomas (B.Sc.), University College
 Smith, William John, University College
 Southam, George Thomas Mitchell, St. Bartholomew's Hospital
 Stevenson, Thomas, Guy's Hospital
 Wood, John Henry, King's College

Second Division.

Cooke, John, University College
 De Negri, Athenodore, University College
 Gale, Henry Stanley, King's College
 Jackson, James, London Hospital
 Mercer, John Thomas, Guy's Hospital
 Taaffe, Richard Patrick Burke, St. Bartholomew's Hospital

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH. The following gentlemen passed their *first professional* examinations during the recent sittings of the Examiners.

McCarthy, John, Cork
 McCulloch, Latham B., Drogheda
 Kingston, Joseph L., Cork

And the following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh.

Boyd, Hugh, Ayrshire
 Gassin, Jean Baptiste Jérémie, Mauritius
 Glover, Henry, co. Down
 Hardesty, James Jeffrey, Edinburgh
 McGibbon, John, Crieff
 Mackenzie, Joseph, Belfast
 Mathews, James Snodgrass, Edinburgh
 Munro, David, Dunfermline
 Sheriff, Thomas, Northumberland
 Tindal, William Davidson, Montrose

ROYAL COLLEGE OF SURGEONS, EDINBURGH. The following gentlemen passed their *first professional* examinations during the recent sittings of the Examiners.

Livingston, John, Perthshire
 McGregor, John, Caithness
 Provan, James, Dunbar
 Walker, William, Kilbirnie

And the following gentlemen passed their final examinations, and received the diploma of the College.

Deas, Peter Maury, Edinburgh
 Hartland, John Francis, co. Cork
 O'Kelly, Joseph, co. Tipperary
 Robertson, James, Aberdeenshire
 Wright, George Edward, Yorkshire

APOTHECARIES' HALL. On November 12th, the following Licentiates were admitted:—

Bale, William, Teviot Dale, Stockport, Cheshire
 Bryan, Edward, Frisby-on-the-Wreak, Leicestershire
 Holyoake, Thomas, Kinver, Staffordshire
 Kelluzworth, Thomas Bradford, University College, London
 Richards, George, Chirk, North Wales
 Starling, George, Union Road, Charlton
 Windle, Henry James, St. Paul's, Bristol

At the same Court, the following passed the first examination:—

Burnham, Ralph, Westminster Hospital
 Evans, Alfred Paget, Sydenham College, Birmingham

APPOINTMENTS.

AGNES, John C., M.B., appointed Junior Surgeon to the West London Hospital.

FERRIS, John S., Esq., elected Resident Physician-Accoucheur to King's College Hospital.
 GABB, John, Esq., elected Mayor of Bewdley.
 KEMPTHORNE, Henry L., Esq., elected House-Physician to King's College Hospital.
 POLLOCK, E., Esq., elected House-Surg. to King's College Hospital.
 *TEEVAN, William F., Esq., appointed Surgeon to the West London Hospital, in the room of C. Heath, Esq.
 TYNER, George St. G., Esq., appointed Resident Surgeon to Dr. Steevens's Hospital, Dublin.
 WEARNE, Vivian, Esq., elected House-Surgeon to the Devonport, Stonehouse, and Cornwall Hospital and Eye Infirmary.

POOR-LAW MEDICAL SERVICE.

BEAUMONT, Joseph W., M.D., to District No. 2 of the Eccleshall-Bierlow Union.
 BOOKER, G., Esq., to District No. 5 of the Eccleshall-Bierlow Union.
 GREGORY, James, Esq., to District No. 3 of the Eccleshall-Bierlow Union.
 KERR, Alexander S., Esq., to the Renyle Dispensary District of the Clifden Union, co. Galway.
 WILLINGTON, Frederick A., Esq., to District No. 1 of the Eccleshall-Bierlow Union.
 WILSON, Knowlton, M.D., to District No. 4 of the Eccleshall-Bierlow Union.

INDIAN ARMY. The undermentioned medical officers, retired upon full-pay from Her Majesty's Indian Military Forces, are to have a step of honorary rank, as follows:—

BALFOUR, Deputy Inspector-General J., to be Inspector-General of Hospitals.
 BRADLEY, Surgeon-Major W. H., to be Deputy Inspector-General of Hospitals.
 SANDERSON, Surgeon-Major J., to be Deputy Inspector-General of Hospitals.

ROYAL NAVY.

ALLAN, James A., Esq., Assistant-Surgeon, to the *Wasp*.
 DICK, James N., Esq., Surgeon, to the *Hydra*.
 DUNCAN, Daniel, M.D., Surgeon, to the *Greyhound*.
 GIVETT, Philip W., Esq., Surgeon, to the *Wasp*.
 IRELAND, Arthur J., M.D., Assistant-Surgeon, to the *Duke of Wellington*.
 JEWELL, Thomas W., Esq., Staff-Surgeon, to the *Aurora*.
 KELLY, Arthur H., Esq., Assistant-Surgeon (addit.), to the *Victory*.
 KYNSEY, J. F., Esq., Assistant-Surgeon, to the *Aurora*.
 MC CARTHY, Denis, Esq., Assistant-Surgeon (additional), to the *Royal Adelaide*.
 MACDONALD, J. A., Esq., Acting Assistant-Surgeon, to the *Aurora*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

CATZER, T., Esq., to be Assistant-Surgeon 15th Lancashire A.V.
 FENTON, H., Esq., to be Assistant-Surgeon 1st Administrative Battalion Shropshire R.V.

To be Honorary Assistant-Surgeon:—

MEADE, E., M.D., 24th Norfolk R.V.

DEATHS.

*ANCELL, Henry, Esq., at 3, Norfolk Crescent, aged 61, on Nov. 19.
 BARRETT, Ferberd S., Esq., Surgeon, at Kingston Bagpuize, Berks, aged 35, on November 13.
 COGAN. On November 14th, at Greenwich, Emma, wife of Cecil C. Cogan, M.D.
 ELLIS. On November 16th, at Crowle, Lincolnshire, aged 1 year and 8 days, Archibald William, youngest son of *Henry Wm. T. Ellis, L.R.C.P.Ed.
 LAMMIMAN. On November 4th, at 106, Cannon Street Road, aged 36, Sarah, wife of Robert W. Lammiman, Esq., Surgeon.
 LOVEGROVE, Washington, Esq., Surgeon, at Hastings, aged 26, on November 12.
 *MARTIN, Peter, Esq., at Reigate, aged 51, on November 14.

OVARIOTOMY. Dr. Thompson, of the County Antrim Infirmary, claims the credit of performing the first successful case of ovariectomy in Ireland; viz., in 1848.

THE PRUSSIAN PARLIAMENT. Nine physicians and two *pharmaciens* have been elected representatives in the Legislative Chamber in Prussia.

SARRACENIA PURPUREA, as an infallible remedy for small pox, will, of course, have its praises sung, so long as the article finds a good sale in the market.

MR. J. H. GREEN. The health of this esteemed member of the profession is so much improved under the kind and unremitting attention of his colleague, Dr. Brinton, that he was enabled to be removed from his temporary lodgings to his own residence on the 18th inst.

BEQUESTS. The Rev. H. J. Hutchinson has left £200 to the Kent Ophthalmic Hospital, £100 to the Canterbury Hospital, and £50 to the Canterbury Dispensary.

SCARLATINA IN THE NAVY. Scarlatina has again appeared at Dartmouth among the cadets on board the *Britannia*. The young lads have, therefore, been all sent home for a season.

WEST KENT MEDICO-CHIRURGICAL SOCIETY. Mr. William Carr has been elected President for the ensuing year; Dr. Robert Venables, Dr. David King, Vice-Presidents; and Dr. James Palfrey, Secretary.

UNIVERSITY OF OXFORD. Examinations for the degree of Bachelor of Medicine, both in the scientific and in the professional part, will commence in the Museum on Monday, November 30th, at 10 A.M.

A NEW METAL. Spectrum analysis has recently introduced us to another new metal through the investigations of Reich and Ritter; the name of *Indium* has been given to it.

UNIVERSITY COLLEGE DINNER. On the 5th instant, the University College medical dinner was held at St. James's Hall; Dr. Parkes in the chair. The most notable presence there was Dr. Elliotson.

THE BRITISH ASSOCIATION. The receipts of the executive committee, from subscriptions, exhibitions, etc., at the recent meeting were £1170:14, which, after defraying all liabilities, left a balance of £395:16:2. The general committee have determined that £200 should be presented to the Natural History Society of Newcastle-on-Tyne, and the balance divided between the Fine Art Society and the Mechanics' Institute.

VACANCIES. The following appointments are vacant:—Two Resident House-Surgeons to the General Lying-in Hospital, Lambeth; House-Surgeon to the Lock Hospital; House-Surgeon to the London Surgical Home; Resident Superintendent and Resident Surgeon to the Birmingham Lying-in Hospital and Dispensary for the Diseases of Women and Children; and Medical Officer for the Heworth district of the Gateshead Union.

PROPORTION OF BIRTHS TO POPULATION. The proportion of births to population in various European countries is given in a blue-book of *Statistical Tables relating to Foreign Countries*. In England and Wales the annual births are 1 in 28 persons; 1 in 30 in Belgium, Holland, and Norway; 1 in 32 in Sweden; 1 in 33 in Hanover, the Hans Towns, and Denmark; 1 in 34 in Greece; 1 in 38 in France; 1 in 26 in Württemberg; 1 in 25 in Russia; 1 in 24 in Austria, Saxony, and Prussia; and in Poland 1 in 23.

A LUNATIC'S SENSATIONS. At the Pathological Society, on the 3rd November, Dr. Wilks related the case of a lunatic who had been battered about the head by another lunatic. After the first effects of the concussion had gone off, the lunatic seemed as well as ever, ate his dinner, and remained in his usual health for some weeks, when he died, apparently of disease not connected with the injury. After death it was found that his skull had been fractured in several places.

PROPOSED TESTIMONIAL TO DR. COOKWORTHY. The Committee of the Plymouth Public Dispensary have determined on taking steps to mark their estimation of the valuable services rendered by Dr. Cookworthy as physician to that Institution during the last fifty years. They have resolved that a marble tablet shall be erected in the Board Room to record his invaluable services, and that a testimonial shall also be presented to him, to be raised by public subscription. This subscription will, we hope, be most extensively responded to by the inhabitants of the town; for the testimonial ought to be such a one as the inhabitants should feel pleasure in seeing presented to a gentleman who has served his day and generation so well, and which the worthy Doctor may feel proud to receive. (*Western Daily Mercury*.)

NEW BAKEHOUSE ACT. The new Act for the regulation of bakehouses has come into force, and Dr. Letheby, the medical officer of the City, has just made a report to the Commissioners of Sewers of the results of an inspection which he has made of the bakehouses in the City. He finds that within the City limits there are 140 bakehouses, in which 364 boys and men, and one woman, are employed. Of the bakehouses, 101 are underground, the others being on a level with the street; 57 were in a filthy condition, these being mainly in the eastern and northern districts. In only one case was the bakehouse used as a sleeping place. The young people under the age of eighteen employed were not in any case allowed to work between the hours of nine at night and five in the morning. Steps were ordered to be taken to enforce compliance with the regulations of the Act of Parliament where those regulations are infringed.

IMPORTATION INTO ZEALAND OF SMALL-POX. Very great alarm has been occasioned throughout the colony by the arrival of several vessels from England with small-pox on board. The first ship which brought the disease was the *Victory*, from Glasgow, which arrived on the 12th of July. The passengers were put in quarantine. Four deaths occurred among the passengers by the *Victory*, and thirteen cases. The next infected ship was the *New Great Britain*, from the Clyde. This vessel had five deaths during the passage from small-pox, and fifteen cases. The *Mataura*, from the Clyde. Thirteen cases of small-pox occurred during the passage, and one patient died. Scarlet fever also prevailed. This ship has been placed in quarantine. The most recent case is that of the ship *Tyburnia*, which arrived at Auckland on September 4th. Small-pox broke out ten days from England, and during the passage nine serious and twenty-six mild cases of the epidemic occurred. There was only one death from small-pox. As yet I have heard of no case of the disease in the colony. At present no Compulsory Vaccination Act exists in New Zealand, and the vaccination of children is sadly neglected. The Otago authorities have been the first to take steps in the matter, and a Vaccination Bill is now in course of discussion by the Provincial Council, and very probably the example will be followed by the other provinces.

SUICIDE BY THE INTRODUCTION OF NEEDLES. M. Caen has published the case of a woman, aged twenty-six, who, being in prison and dreading to be brought to trial, resolved to destroy herself. This she accomplished by thrusting about thirty pins and needles into her chest in the region of the heart. She introduced them with great gentleness, and used to press them inwards with the aid of her prayer-book. She died on the day preceding the intended trial. On a *post mortem* examination numerous needles were found in the parietes of the chest, all of which were more or less travelling inwards; some had reached the lungs, and some were found in the mediastinum; one had reached the back part of the right auricle and perforated the descending cava. The anterior portion of the left ventricle was transfixed by a needle, and a small clot had formed around it within the cavity of the ventricle. The œsophagus also was perforated by a needle, and several were found in the liver.

THE INDIAN MEDICAL STAFF CORPS. The despatches from Her Majesty's Secretary of State for India have been received by the Governor-General. The proposed alterations are on a most extensive scale. The chief points fixed are the retention of staff appointments of every description to be limited to *five years*, including pay-inspector-generals, inspector-generals, and deputy-inspector-generals; the retirement of these officers at the expiration of five years' tenure of office is to be compulsory, as is the case with brigadiers; but some compensation in the shape of increased pension is to be given to the officers thus shelved, unless already entitled to the highest pension—viz. £700 per annum. The

minor staff appointments are subject to renewal at the expiration of five years. Many of the details, such as the enforcement of the "Hindustani Staff test," are left to the decision of the Governor-General. But it is supposed that the present incumbents will not be subjected to this ordeal, unless on confirmation, reappointment, or promotion to the higher grades. The pay of relative army rank has been conceded to the medical officers, but the amount of staff allowance is left open, to be determined by the Governor-General. The receipt of such allowances (except in the case of the charge of European troops) is, in all instances, to be contingent on passing the Hindustani Staff test. Officers not joining the Royal Staff Corps are to be allowed to remain, as at present, on the local list, without the privilege of pay of relative army rank, and the option of pensions, according to the warrant of 1858 or the rules now in force. The funds, both medical and military, are likely to form the subject of a future despatch. (*Times of India*, Oct. 1.)

YANKEE ARMY SURGEONS. The following medical officers have been tried by Court-Martial recently:—Assistant-Surgeons Wm. Robinson, tried for acting in a disgraceful and disorderly manner while in a state of intoxication, found guilty, and sentenced to be dismissed the service. Surgeon Alfred Wynkoop, tried for conduct to the prejudice of good order and military discipline, and sentenced to be dismissed the service of the United States. Sentence remitted by the President on recommendation of the General commanding the Army of the Potomac, to severe reprimand, and to be published in General Orders, it appearing that the act was one of indiscretion, and not of intentional criminality, and that no evil resulted from it. Assistant-Surgeon Edmund G. Pugsley, tried for conduct to the prejudice of good order and military discipline, and conduct unbecoming an officer and a gentleman, found guilty and sentenced to be cashiered. Assistant-Surgeon George Dougherty, tried for drunkenness, found guilty, and sentenced to be dismissed the service of the United States. Assistant-Surgeon James M. Morrison, tried for conduct unbecoming an officer and a gentleman, enticing a non-commissioned officer to leave camp with him without a proper pass, found guilty, and sentenced to be dismissed the service of the United States. (*American Med. Times*.)

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY..... Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY.... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY..... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY...... Westminster Ophthalmic, 1.30 P.M.
SATURDAY..... St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Dr. C. H. F. Routh, "Lectures on the Midwifery and Diseases of Women"—Royal Geographical.
TUESDAY. Royal Medical and Chirurgical Society, 8.30 P.M. Dr. William Ogle on Derby: "Supposed Abdominal Tumour: a Stick, ten inches long, introduced into the Bowel per anum"; Mr. T. P. Salt (of Birmingham), "Description of a New Truss"; Mr. H. Thompson: "Difficult Case in Laryngotomy, from Distortion of the Polyps by Rickets."—Zoological.
WEDNESDAY. Society of Arts.
THURSDAY. Royal.—Antiquarian.

POPULATION STATISTICS AND METEOROLOGICAL OBSERVATIONS FOR LONDON—NOVEMBER 14, 1863.

[From the Registrar-General's Report.]

	Boys..1006	Girls.. 995	Births.	Infant.
During week.....	2061	1437		
Average of corresponding weeks 1853-62	1851	1379		
Barometer:				
Highest (Fri.) 30.117; lowest (Wed.) 29.246; mean, 29.701.				
Thermometer:				
Highest in sun—extremes (Mon.) 79.7 degs.; (Wed.) 47.2 degs.				
In shade—highest (Sun.) 53.3 degs.; lowest (Tu.) 28.1 degs.				
Mean—41.6 degrees; difference from mean of 43 yrs.—2.5 deg.				
Range—during week, 25.2 degrees; mean daily, 12.9 degrees.				
Mean humidity of air (saturation=100), 91.				
Mean direction of wind, S.W.—Rain in inches, 0.33.				

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PHYSICIANS' FEES.—Our readers will remember the highly honourable part played by Dr. Vose, of Liverpool, in reference to a disputed fee. The profession will be glad to learn that his conduct has been duly appreciated, and that the fee originally demanded by him has been paid.

DR. PHILBRICK'S CASE.—Our readers will remember the persecution to which Dr. Philbrick, of Leamington, was some months subjected to, in consequence of the extraordinary evidence which was given at Leamington by some of his medical brethren, on the occasion of a coroner's inquest. A most groundless action was brought against Dr. Philbrick, in consequence of which he was put to great expense, and still greater anxiety of mind; and, unwilling to run the risk of losing the suit, he compounded with the plaintiff. We now recur to the fact, to note that the attorney for the plaintiff in the action against Dr. Philbrick, was, a few weeks ago, struck off the rolls!

A CHEAP ASSURANCE OFFICE.—Dr. W. Ogle of Derby has written the following reply to an assurance office, which wishes to have the benefit of some of the abundant gratuitous medical advice now in the market.

"Derby, November 5th, 1863.

"Dear Sir,—After very full consideration of your second application to me to accept half-a-guinea for proposals under £500, I beg to decline. I do not even in private practice accept less than a guinea; and though almost always a second visit is expected, which would seldom be necessary in your case, the correspondence and extra care which (if the work is done properly) is often necessary in life assurance, makes me feel that the return is barely adequate, even when the full amount is paid.

"The last case, for which I received two guineas, occupied me several hours. I might have dismissed it in five minutes; but in that case, my report to the Company would have been very different. Unless I am greatly mistaken, the Company will have no reason to regret their liberality.

"Had you been instructed to offer a proportionately increased fee for larger sums, I would have accepted your proposal, because the work is, professionally, very interesting to me; and, in addition, I take great interest in the principles of assurance, believing that they are capable of much wider application than has been made of them at present. I am, etc., WILLIAM OGLE."

COMMUNICATIONS have been received from:—Dr. James Russell; Mr. Pick; Dr. C. Taylor; Dr. G. D. Gibb; Mr. Ashley G. Osborn; Mr. J. W. Huckle; Mr. H. Bailey; Dr. Humphrey Sandwith; Dr. Kidd; Mr. S. Wood; Dr. T. B. Bott; Mr. W. Edgewood; Dr. Johnson; Dr. Ellis; Dr. Mackenzie; The Hon. Secretaries of the Royal Medical and Chirurgical Society; Mr. W. R. Roberts; Dr. J. G. Hildige; Dr. Hughes Bennett; Mr. W. Allison; Mr. T. M. Stone; Dr. Dyce Duckworth; Dr. Waters; and Dr. Farres.

BOOKS RECEIVED.

1. Transactions of the Pathological Society of London. Vol. xiv. London: 1863.
2. Essays on Digestion, etc. By the late J. Carson, M.D. London: 1863.

BEQUES
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Lectures

ON

ORTHOPÆDIC SURGERY.

BY

BERNARD E. BRODHURST, F.R.C.S.,

OF ST. GEORGE'S HOSPITAL, AND THE ROYAL
ORTHOPÆDIC HOSPITAL, ETC.

LECTURE III.

ON CURVATURES OF THE SPINE.

(Continued.)

Cyphosis.

CYPHOSIS, or posterior curvature of the spine, is a much more frequent affection than the last mentioned form of distortion. Indeed, occurring, as it does, in infancy, in youth, and in old age, it is one of the most common forms of distortion of the spinal column. As well as being applied to posterior curvature, the term cyphosis is also sometimes used to express angular curvature of the spine. But, inasmuch as posterior curvature and caries, or angular curvature, are totally distinct affections, I shall not include them under a common heading; nor shall I further allude to the last-mentioned form of disease at the present time; but shall reserve what I have to say with regard to it for a future occasion.

The causes of posterior curvature of the spine are debility—debility in infancy, in youth, and in old age; rachitis, muscular rheumatism, and partial paralysis. Some occupations are prone to induce a stoop in those who are engaged in them; thus it is, for instance, with watchmakers, engravers, embroiderers, writers, shoemakers, and others, whose occupations require a stooping position. This position, which is at first most irksome, becomes at length easy, and more or less permanent. Those, also, who are subject to asthma, acquire a stoop which becomes diagnostic of the disease.

Debility and rachitis are, in infancy especially, the causes of cyphosis. For the most part, the curve occupies the entire length of the spine, from the occiput to the sacrum; and in infants this is the least severe form of posterior curvature. The normal curves of the spine have not been formed, the muscles of the back not having power to support the trunk; and the head falls forward through muscular debility. This bowed condition of the spine increases, and the dorsal vertebræ become more prominent; for, notwithstanding its weakness, the child is seldom kept lying down. Nutrition is imperfect, and symptoms of rickets begin to show themselves; frequent diarrhoea, perspiration about the head and neck, general wasting, and a blanched condition of the skin. The child is uneasy and fretful. Swelling of the ends of the long bones may now be observed, especially of the carpal extremity of the radius and the tarsal end of the tibia; and the vertebræ will probably now assume a somewhat more conical appearance.

Such children are seldom brought up at the mother's breast, or they are not alone nursed, but at

the same time they are fed with farinaceous food. Some are born rickety; others become so at the breast, when, at the same time, they are fed with farinaceous food; but a child which is healthy at birth, will seldom show symptoms of rickets while it has a sufficiency of milk for nutrition (and without admixture of farinaceous food), and while it is kept warm.

Some of the worst forms of this affection are produced in Russia. The intense cold which prevails during the winter months is the reason, though an insufficient one, for the very imperfect ventilation which is observed in the dwelling-rooms throughout Russia. So badly ventilated and hot are the rooms in St. Petersburg, for the most part, that respiration is not carried on easily. But, in winter, the children are seldom allowed to breathe the outer air. This is a prominent cause of the prevalence of this affection in Russia.

When the child has commenced to walk, a different kind of curve is, for the most part, induced. Here the normal antero-posterior curves have been at least in part developed, that the erect position may be maintained; and consequently, as in the last mentioned form of distortion, the curve which is induced is an exaggeration merely of the normal curve of the region: it occupies especially the middle or the middle and upper portions of the dorsal region. (Fig. 5.)



Fig. 5.

In youth, posterior curvature often occurs during rapid growth, as a consequence of debility. At this period, the lower cervical and the upper dorsal vertebræ are mostly affected. A stoop is not unfrequently acquired during convalescence, and remains permanent in manhood. Those also who are short-sighted, and who do not habitually wear

glasses, are apt to accommodate their figures to their imperfect vision, and thus acquire a stooping position. Posterior curvature is not attended with pain; so that firm pressure may be made along the course of the spine without flinching. And should tenderness be found on examining the spine, destructive disease, or caries, must be suspected. Caries is often so insidious in its advances, that great and irremediable distortion may be already induced before the affection is recognised.

In *old age*, an abnormal increase of the dorsal curve is common, as a result of muscular debility. And when cyphosis has been induced by any occupation, or through disease, as rheumatism, etc., it is frequently much increased in old age; then equilibrium can no longer be sustained, and a stick becomes necessary for support.

The *pathological appearances* differ according to the age at which cyphosis is observed. In infancy, the muscular system is chiefly affected; while, in the adult, the intervertebral substances become compressed anteriorly; and, in old age, fusion of the bodies of the vertebrae or more partial ossification may be found. Together with these changes, the whole trunk is more or less affected; the chin rests on the sternum; the ribs are approximated, and respiration is laboured, in consequence of their diminished motion.

The *treatment* of this affection in childhood is simply to maintain the horizontal position until debility is so far removed that the child has power to sit or stand erect. Nature is an excellent guide with regard to this change.

When debility is inconsiderable, a splint of leather or gutta percha applied to the back will give sufficient support to enable such children to assume a sitting posture occasionally; but when the head droops, the horizontal posture ought to be maintained; for it cannot be otherwise supported in an infant without the apparatus be so weighty that it is liable to do more harm than good. Such children, then, should be treated for debility in the horizontal position. But it is not necessary here to dwell on the appropriate treatment for debility; this involves rules of diet and hygiene generally. It is a subject which deserves to be treated of at length; for it is one that is greatly neglected, and yet of the utmost importance to children of every class; since it relates to the diet, the air that is breathed, the clothing by day and night, exercise, bathing, etc. I say it is of the utmost importance to children that these questions should be carefully considered with regard to them especially, since they are more sensitive to external agencies than adults; and yet no adult can neglect any of these considerations with impunity. The neglect of this subject involves great loss to the state; the lives of the people being shortened, and their physical power not being wholly developed through inattention to the laws of our well-being.

This is a subject which, as yet, has scarcely been treated of in our language; indeed, it cannot properly be said to have been treated of at all. Nor is it possible here to enter on the treatment of rachitis: this is a subject scarcely less extensive than that last mentioned. Suffice it to say, that the horizontal position, together with a well-regulated animal diet, attention to warmth, ventilation, exercise, bathing, etc., will speedily alter the appearance and

increase the strength of any child suffering from cyphosis.

As the muscular system becomes more developed, gymnastic exercises are useful to increase the power of the extensors of the trunk. According to circumstances, they may be used in the horizontal or the upright position. These exercises will generally remove the tendency to cyphosis, if debility have occurred in youth, and they are employed carefully, and before the curve is permanent. In advocating the employment of gymnastic exercises, however, I consider it an absolute duty, having watched very closely their effects, to warn against their indiscriminate use. I know nothing more pregnant with danger where a spinal curve exists, than the use of muscular exercises: they should never be undertaken without the constant superintendence of a competent person. Frequently, a slight curve is increased by their use, and a temporary curve is rendered permanent.

Hereditary cyphosis will seldom be removed by any means; and it will generally recur if removed. It is, for the most part, conjoined with thoracic disease.

Portable instruments, which remove the weight of the head and shoulders from the spine, may be used with great advantage in most of these distortions; indeed, after childhood, they should, for the most part, be worn when exercise is taken; but modified pressure whilst in the horizontal position and on the spinal couch—pressure which can be regulated at will and perfectly adjusted by means of springs—is the only certain form of instrument which can be employed where the curve is more than of the slightest kind. With a portable instrument, the pressure that can be used is of the most trivial description; but with the couch, treatment commences in earnest. It is a mistake, however, in these cases, to use much pressure. The curve is much more readily removed by moderate, firm pressure on the horizontal couch, than by severe pressure. Pressure which is painful is hurtful; it induces much rather a compensating curve than the removal of the primary curve.

In *old age*, support to the trunk may be so well adjusted that the instrument shall give great comfort to the wearer, and not be apparent, unless the head also be supported. These supports may be worn with the greatest ease, even on horseback. One of the most celebrated men who ever lived was to be seen on horseback, with his chin very close upon the pommel of his saddle, until he wore such a support as is now mentioned, when he was again as upright as in his youth. He continued to use this support so long as he rode; namely, within a very short period of his last illness.

PRESENTATION OF ADDRESSES TO DR. EDMUNDSON. A few months since, Dr. Edmundson of Carrick on Suir was appointed by the Lord Lieutenant to the position of Resident Superintendent of the Auxilliary Lunatic Asylum at Clonmel. His departure from Carrick seems to have called forth universal regrets. An address was prepared on behalf of the town, and signed by the magistracy, gentry, and townspeople generally. Accompanying this complimentary expression of opinion, was a costly evening service of plate, and a valuable skeleton clock. The constabulary body of Carrick, also presented Dr. Edmundson, their kind and attentive medical officer, with a third address, accompanied by a handsome photographic album. (*Clonmel Chronicle*.)

Abstract of Two Lectures

ON

LARYNGEAL DISEASE, AS EXHIBITED BY THE LARYNGOSCOPE.

*Delivered to the Students of the Birmingham
General Hospital.*

BY

JAMES RUSSELL, M.D.,

PHYSICIAN TO THE HOSPITAL.

[Continued from page 543.]

II. Respiration. It is hardly needful to repeat that, for a full and sufficient inspiration, as occurs during tranquil breathing, the glottis must be well opened. Czermak says that he could pass his fingers through the glottis when in this condition, and I have no doubt that he is correct; indeed, the appearance of the glottis in the unfortunate suicide, to whom I have already referred, certainly justified his assertion.

Now, in more than one of the diseases I have lately described, this necessary opening of the glottis is prevented, and the lips are maintained permanently more or less in abnormal approximation. When a morbid growth exists within the larynx, the degree of obstruction which it offers must vary with circumstances; with its situation and mobility. In the case to be hereafter described, obstructed breathing occurred only in certain positions of the head and neck. Such a statement on the part of the patient may serve to arouse our suspicions in similar cases. Equal diagnostic value does not attach to another complaint by the patient, of sudden dyspnoea at the moment of first falling asleep. This symptom is shared, as we shall see by and by, by other organic affections of the larynx. In the case to which I now specially allude, the growth was pendulous and freely moveable; hence, though hanging between the vocal cords, it left sufficient space for the free passage of air, being drawn within the trachea during inspiration, and driven into the larynx by the expiratory effort. Hence the obstacle it opposed to free breathing was less serious than might have been expected, although dyspnoea of an alarming character was occasioned more than once. In a similar case, presented to the Pathological Society of London (*Medical Times and Gazette*, April 4th), a similar growth attached along the vocal cord, being less moveable, proved fatal by inducing sudden asphyxia. Such, too, would probably have been the ultimate fate of our patient, had not the tumour been discovered in time, before it had attained still larger dimensions.

Answering to the bastard paralysis, to which I have adverted as a cause of aphonia, I may here mention spasm of the glottis as a well known cause of impeded or even of arrested breathing. In using the laryngoscope, nothing is more striking than the frequent approximation of the apices of the arytenoid cartilages, and consequent closure of the glottis, which is effected as a consequence of the slightest sensation in the throat; the orifice of the larynx is, indeed, seldom quiescent for any length of time, so jealous is the larynx of the least intrusion within its sacred precincts.

It is this movement which is exaggerated in cases of spasm. In the suicide more than once referred to, we saw the vocal cords repeatedly brought into apposition, from the irritation of the outer air, or from any reflex action excited by contact with the mucous membrane of the upper part of the larynx during the necessary manipulation. So urgent was the need for relieving this spasm, that an orifice into the larynx was required beneath the vocal cords.

In inflammation within the larynx, spasm of the glottis still has frequently a share in impeding respiration, but in such cases a more permanent cause of obstructed breathing exists in the effects of the inflammation itself; and the laryngoscope exhibits that cause in operation. The fixed condition of the arytenoid cartilages, produced by the rigid condition of their mucous covering, permanently approximates the vocal cords, and narrows the inlet for the air; whilst the swelling of the false vocal cords, when present, further diminishes the capacity of this inlet. In acute inflammation, the obstacle often exists also at the upper orifice of the larynx, in consequence of œdema of the aryteno-epiglottic folds. Regarding chronic inflammation only, at present, I have to observe that the orifice of the glottis is generally sufficiently patulous to enable the patient to conduct *tranquil* breathing without stridor, though frequently with conscious effort on his part; but when the patient is hurried or makes exertion, or even if he draw a deep breath, inspiration becomes instantly noisy. One of my patients, who respired easily when quiet, spoke of himself as being "like a broken-winded horse" when he walked fast; and he stated that when he slept, when the muscular apparatus of the larynx is relaxed, he made so much noise during respiration, as seriously to disturb those who slept in his room. The noise, under these circumstances, occurs chiefly during inspiration, unless closure of the glottis is very considerable, from the valve-like action of the upper vocal cords; the true cords, not being equally thickened, do not oppose the same obstacle to the egress of the air.

I must notice, in passing, a more remote consequence of impediment to free breathing in chronic laryngitis—the loss of flesh which is often present; due, no doubt, to defective aëration of the blood. This symptom was present even in the case of tumour within the larynx, although the patient was in other respects in good health.

III. Cough. The object of the act of coughing is to clear the respiratory passages of foreign matters, whether expectoration or foreign substances. As the larynx is the appointed janitor of these passages, its sensitiveness to impressions is remarkably keen: hence the violence and explosive character of the laryngeal cough. Therefore, under normal circumstances, cough will be regulated by the amount of matter to be expelled, and by the degree of irritability possessed by the mucous membrane.

Now, even in so small a compass as the interior of the larynx, there is a surprising variety in the situation of the inflammation, or rather of its visible effects. The inflammation may affect the mucous membrane itself, together with the submucous cellular tissue, or may expend its force mainly upon the latter. In the former case, with an injected state of the membrane, there will also be copious secretion, and cough of extreme violence; in the second case, the membrane will be pale and void of secretion, and

cough will be a subordinate symptom. This difference is also illustrated by the following cases.

It is singular that the patient with the tumour in his glottis was so free from cough; we must ascribe his immunity to the slow growth of the tumour, whereby the mucous membrane was gradually accustomed to the presence of the intruder.

Before concluding, I must just glance at one act in which, during health, the larynx is hardly concerned; I mean the act of deglutition. In inflammatory and other affections of the larynx, as is well known, this act is often painful, though it is far from being so invariably. The presence or absence of dysphagia depends on the epiglottis being involved in the disease.

The condition of the epiglottis is easily ascertained by the laryngoscope. In the chronic forms of inflammation, to which I have here confined my attention, it is seen sometimes erect and everted, exposing to view almost the whole of its under surface, and not infrequently a large part of the laryngeal cavity, even the anterior insertion of the vocal cords; sometimes, on the contrary, it is greatly thickened, or oedematous and contracted, reminding one forcibly of the semicylindrical tiles placed on the crest of a roof; at the same time, it is unusually prone, perfectly shutting out the interior of the larynx from view.

It will thus be seen, that when the epiglottis is affected, it by no means necessarily follows that choking should attend the performance of deglutition, how painful so ever that act may be; although it must still be remembered, that even when the epiglottis is preternaturally prone and covers in the cavity of the larynx, its swollen and rigid condition may disqualify it for preventing the intrusion of matters, especially those of a fluid character, and the evil will, of course, be much increased if ulceration be superadded.

[To be continued.]

HUNTER'S PORTRAIT. The painting was the *chef d'œuvre* of Sir Joshua Reynolds, and like all his productions has been rapidly fading; it was accordingly consigned to Mr. Farrer, on the recommendation of Sir Charles Eastlake, and so well has this gentleman performed the cleaning process that it now exhibits a freshness which has not been seen for the last half century. The history of the painting is this. Hunter's friends had long been desirous to engage him to sit to Sir Joshua Reynolds, but he always declined, not choosing that it should be done at the expense of others, and thinking the price too high for himself to pay. He was, however, at length induced to comply, chiefly to oblige Sharpe, the eminent engraver, who was very anxious to make an engraving from Sir Joshua's picture. Reynolds found Hunter a bad sitter, and had not been able to satisfy himself with the likeness, when one day, after the picture was far advanced, Hunter fell into a train of thought, in the attitude in which he is represented in the portrait in question; Reynolds without saying a word turned the canvass upside down, made a fresh sketch, with the head between the legs of the former figure, and so proceeded to lay on over the former painting, the colours of that which now graces the walls of the Council Chamber of the Royal College of Surgeons. From this portrait Sharpe executed his engraving, which is admitted by the best judges to be one of the finest, if not the very finest, specimen of the art ever executed. (*Dublin Med. Press.*)

Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

ILLUSTRATIONS OF THE CAUSES OF HOARSENESS AND LOSS OF VOICE.

By GEORGE D. GIBB, M.D., M.R.C.P. Lond., Physician to the West London Hospital, and Assistant-Physician to Westminster Hospital.

HOARSENESS has long been recognised as a prominent and common symptom of disease, whether located in the larynx or in the trachea. According to the amount of roughness it possessed, or to its smooth, yet low tone, was the inference drawn of the amount of congestion or inflammation of the part giving rise to it. Its period of duration, if protracted for months or years, was still believed to depend upon a very chronic state of inflammation, requiring the persevering use of counterirritation and the adoption of alternative constitutional treatment. A commencing hoarseness, changing in its tone and character according to its period of continuance, would not unfrequently end in more or less complete aphonia, perhaps a raucous, or may be a soft and smooth whisper; a *sursumption*, the result of the cessation of action in the inferior vocal ligaments or glottis, the articulation of sound being produced by the lips and tongue, as the air passed in or out of the vocal tube.

A hoarseness may persist for ten or even twenty years, without being necessarily associated with permanent loss of voice; yet experience is daily proving that freedom from occasional attacks of the latter is rare in long continued hoarseness.

In the laryngeal mirror, we see the reflection of the various causes giving rise to modifications of the voice in speaking or singing, and assuredly they are numerous enough. Congestion of the larynx *per se* will not produce hoarseness, unless it involve the mucous membrane in immediate connection with or covering the vocal cords, and thus interfering with their action. Temporary congestion of the membrane covering the thyroarytenoid muscles, and of the aryteno-epiglottidean folds, is produced when particles of dust, food, whether solid or fluid, or other substances, come into contact with them in deglutition. This is commonly known as "something going the wrong way." The roughness felt in the larynx and the hoarseness, are here the result of the impaired action of the laryngeal muscles through the want of harmony and simultaneous action, which arise in common with the irritation and congestion produced by the presence of the foreign substance. The membrane of the false cords is at the same time not unfrequently tumefied as well as congested, as the laryngeal mirror has shown me.

Acute inflammation of the larynx or trachea is known to cause hoarseness and dysphonia, and this has now been seen many times in the laryngeal mirror. The ulceration of a single mucous follicle will produce as obstinate an amount of hoarseness as a large extent of inflammatory disease, and if the ulcers be extensive and numerous, especially on the vocal cords, the voice is extinguished.

The supra and infraglottic submucous areolar tissue is in some persons so lax, that there is a tendency, on the subsidence of congested or inflamed states, to the formation of little folds or plications of the mucous membrane, which grow into little polypoid tumours, or form true warts, according to their seat and the amount of resistance which they offer to the explosive succus-

sions of the air during the formation of sound, or in coughing. These are the causes of the most obstinate and long continued hoarseness. An artificial voice after the partial loss of substance in one or both true vocal cords, gives rise to what may be called a loud and rough hoarseness.

In cases where the destruction of the cords has been so great as to produce complete aphonia, my efforts are directed to the production, if possible, of a loud and audible hoarseness, through the intervention of the subglottic mucous membrane; and I am happy to say they have been sometimes successful, so that a person heretofore aphonic, and able to make himself understood only by an almost inaudible whisper, has been heard across a room in a loud hoarseness. This is a desirable result, when the generation of perfect vocalism is rendered impossible from the lesions existing in the yellow elastic tissue of the true vocal cords.

There is yet another cause of hoarseness, which is here announced for the first time; and it is atheromatous conversion of the true structure of the cords, seen either as the result of advanced life, or of premature changes in the middle-aged or even younger. With some amount of hoarseness, is there an alteration in the character of the voice, which becomes cranky, shaky, brassy, cracked, or tremulous. Hoarseness not unfrequently arises from the pressure of intrathoracic or cervical tumours upon the bronchi and trachea, with a decided alteration in the voice as well. If circumstances be favourable, the trachea can be seen throughout its length to the bifurcation, and collateral signs must be weighed in estimating a diagnosis. Aneurisms are the most common of all tumours pressing on the trachea, and not necessarily involving the pneumogastric or recurrent laryngeal nerves, although they frequently do.

Tumours growing within the trachea, generally from its posterior wall, give rise to hoarseness which simulates that from the pressure of an aneurism. Indeed, the latter was diagnosed by one of our first authorities, in an instance where the former was found after death, and no aneurism was discovered.

A lax condition of the mucous membrane of the false cords and epiglottidean folds, with sometimes tumefaction or swelling, or submucous infiltration giving rise to supraglottic œdema, are causes of hoarseness as verified by the laryngoscope. Impeded circulation through the laryngeal vessels, whatever may be the cause, sometimes proceeding to a varicose condition of the veins, and generally, so far as my experience leads me to believe, associated with a moderate amount of œdema, particularly involving the aryteno-epiglottic folds, produces a dysphonic hoarseness.

A painful kind of hoarseness, the hoarseness of obstruction, is produced by infraglottic œdema, *i.e.*, an œdematous condition of the mucous membrane of the larynx below the vocal cords, seldom extending further than the commencement of the first ring of the trachea, yet generally requiring the trachea to be laid open, if relief be not quickly obtained by active constitutional measures. This condition is wholly distinct in nature and character from the supraglottic œdema, with which we are familiar under the ordinary name of œdema of the glottis. I have carefully investigated the clinical history of both forms in different stages, with the aid of the laryngoscope; but I announce in this place for the first time, the existence of two distinct forms of œdema of the glottis, to which I give the names of *supraglottic œdema of the larynx*, and *infraglottic œdema of the larynx*, the treatment of both varying, and the form which might be supposed the most dangerous, namely the supraglottic, being in reality the most amenable when early scarifications are practised with the assistance of the laryngeal mirror, associated perhaps, as I have already successfully practised a few times, with laryngeal catheterism. The nature of the effusion in the first form is serum, and in

the second, lymph or fibrine. The anatomical disposition of the submucous areolar structures, above and below the glottis, is so widely different, that at first sight, my division of œdema would be considered unjustifiable. It remains for those who, like myself, are constantly working with the laryngoscope, to bring information to bear on this highly important subject.

As it would be taxing the patience of the members present, to go further into the details of this interesting subject, I shall content myself by pointing out these various causes of hoarseness as well as I can, in groups, in the diagrams suspended on the wall, all of which represent actual conditions seen by the aid of the laryngeal mirror, in cases which came under my personal observation.

I must, however, observe that, in some cases the amount of hoarseness present, was not at all proportionate to the extent of the disease and resistance offered to the passage of air through the glottis. Nevertheless that there must be some amount of hoarseness and aphonia present, and a cause to explain them can be readily conceived, before a diagnosis is attempted to be made. In the different groups we have:—

1. Various degrees of congestion and inflammation in primary hoarseness and aphonia, which are liable to degenerate into—

2. Thickening of the mucous membrane and deposition of lymph or serum in the tissues beneath;

3. These give rise to puckering, folds, growths, and swellings.

4. Over-exertion of the laryngeal structures, whether muscular or ligamentous, give rise to disturbance in the uniformity of the tensile fibres of the true vocal cords, ending in disease, proceeding to ulceration, or hypertrophy, or impaired nervous power, causing hoarseness, aphonia, and dysphonia.

5. Partial or complete destruction and lesions of the true and false vocal cords, and other contiguous structures, of which examples are numerous.

I might add some others, but sufficient is stated to show that mere congestion or chronic inflammation is not the invariable cause of hoarseness, especially in chronic cases, and that the extent and amount of counter-irritation sometimes practised to get rid of it is generally uncalled for, and decidedly debilitating, if not positively injurious, in its results. Indeed (as I shall now point out in a very few words), hoarseness and loss of voice depend upon so many and so widely different causes, that for any one to attempt to cure them without ascertaining their true origin, would prove not only injurious to the patient, but mortifying and embarrassing to the practitioner.

As my main object in this short paper, is to show what gives rise to hoarseness and aphonia, I shall at present refrain from entering into the subject of their treatment.

The examples which were brought forward to illustrate this communication, in the form of large diagrams, and briefly described, were:—

Five cases of total loss of the free portion of the epiglottis, and ulceration of the aryteno-epiglottidean folds, true and false vocal cords, and arytenoid cartilages.

Three cases of growths between the origin of the vocal cords anteriorly.

Four cases of growths originating between the vocal cords posteriorly.

A case of growth springing from the right ventricle of the larynx, and hanging down in the trachea.

In all the above, excepting one instance, the growths were removed by the laryngeal *écraseur*, and the hoarseness and loss of voice were cured.

A case of double plication of the mucous membrane in the anterior infraglottic region, of which occasional hoarseness was the sole symptom.

Two cases of growths from the free borders of the true cords, one very much elongated and detached spontaneously.

Four cases of growths from the superior surfaces of the true cords, but in one involving the false as well.

Three cases of irregular destructive ulceration of the true vocal cords.

A case of variculous destruction of the right vocal cord.

Three cases of tuberculous ulceration of the whole larynx, with destruction of tissue.

A case of supraglottic oedema, with perforating ulcer of velum palati.

A case of elephantiasis of the throat and larynx.

A case of phlebotaxis laryngea, and paralysis of the true cords from old inflammation.

Seven cases of pendency of the epiglottis, with a tumour posteriorly in one.

Eight cases of malformation and deformity of the epiglottis.

Two cases of malformation of the larynx in the deaf and dumb.

A case of paralysis of the larynx after diphtheria.

A case of supposed aortic aneurism pressing upon the trachea.

A case of bronchocele pressing on the trachea. In these three cases the bifurcation of the trachea was represented as seen in the laryngeal mirror.

A case of necrosis of the cricoid cartilage, with expulsion of portions of it.

A case of chronic inflammation of the larynx and trachea in epilepsy.

A case of patchy copper discoloration of the larynx from syphilis.

A case of expectoration from the infraglottic region of rings of lymph, from an excoriated surface.

A case of wound of the left vocal cord with a penknife, and its cicatrix of union.

A case of nutshell seen in the rima glottidis.

A case of wound of the back of the tongue in front of the right half of the epiglottis.

Two cases of ulceration of the nostrils posteriorly, associated with disease of the larynx.

All these were represented by upwards of sixty diagrams; and I may remark, in conclusion, that a large number of cases of loss of voice have been under my observation and treatment, wherein the causes were of a functional character, chiefly depending upon loss of nervous power over the laryngeal muscles. In these, nothing was seen (to depict) structurally wrong; the true vocal cords were either completely paralysed in their action, or the latter was so limited as to prevent perfect approximation of the free borders of the glottis, and therefore, inability to produce sound was the result.

THE BITTER PRINCIPLE OF GENTIAN. Chemists have long failed to isolate the body to which gentian owes its purely bitter taste, though there has been eliminated an acid principle, gentianic acid. Ludwig and Kromeyer have at last obtained it from an alcoholic extract of the fresh root of gentian (*lutea*), the watery solution of which transferred its bitterness to animal charcoal by two successive treatments. The charcoal was extracted with alcohol, the tincture evaporated, the residue freed from precipitable matter by means of oxide of lead, and after removal of the latter by sulphuretted hydrogen, evaporated to the consistence of a syrup; the latter precipitated the principle by agitation with ether. This *gentopierin* is crystallisable, is readily soluble in water and alcohol, but not in ether, neutral, and not precipitated either by tannin or subacetate of lead. It is a glucoside; for contact with mineral acids, as well as oxalic and acetic acids, splits it into fermentable sugar and a brownish, yellow, amorphous body, *gentiogenin*. (*Pharmaceutical Journal*.)

Original Communications.

ON PORRIGO.

By R. WILLIAM DUNN, Esq., Senior Surgeon to the Farringdon Dispensary.

IN Willan's *Synopsis* by Dr. Bateman, we have six specific forms of this disease; viz., *Porrigo Larvalis*; *Porrigo Lupinosa*; *Porrigo Scutulata*; *Porrigo Decalvans*; *Porrigo Furfurans*; *Porrigo Favosa*. I reduce these to one; viz., *Porrigo Scutulata*; for *P. Furfurans* is *Pityriasis Capitis*, or chronic *Eczema*; *P. Larvalis* is *Impetigo*; *P. Decalvans* is *Alopecia Circumscripta* of the present day; and *P. Favosa* is true *Favus*, which is quite a distinct disease from *Porrigo*. I propose to discard the name of *Porrigo Scutulata*, and call the disease *Porrigo Contagiosa*, and place it among the parasitic diseases of the skin. I shall proceed at once to describe this eruption; and to point out how it may be distinguished from other diseases of the skin resembling it.

Porrigo Contagiosa is characterised by an eruption of large, dirty, straw-coloured spots, of a flattened, irregular shape, seeming as if they were stuck on or glued on the part. There is no inflammation at the base, nor redness. It appears most commonly on the scalp; but is found on all parts of the body. It is accompanied by a little itching. When the face and extremities are attacked, the spots assume a more regular shape. There is generally more or less discharge from them. The lymphatic system is affected, supuration even sometimes taking place. The disease commences generally by a red papule, which soon becomes pustular, and very soon forms the peculiar kind of incrustation which Willan and Bateman term a *psudracium*. Whitlows, containing thin, watery pus, appear on the fingers; and ulcerations are found upon different parts of the body.

DIAGNOSIS. *From Impetigo.* The great distinctive differences between these two are the following. In *porrigo*, we have the total absence of the inflamed base which we find in *impetigo*. 2. In *porrigo* we have a pustular scab, in *impetigo* a seropurulent one.* 3. In *porrigo* we have glandular enlargements, ulcerations, and whitlows; which we do not find in *impetigo*. 4. In *porrigo* the scab appears as if stuck on to the part; whilst in *impetigo* the scab is always surrounded by a more or less inflamed base. 5. *Porrigo* is contagious; *impetigo* is not.

From Favus. 1. Both are contagious; but *favus* more so than *porrigo*. 2. *Favus* is generally a chronic complaint; *porrigo* acute. 3. In *favus* we have a peculiar mouse-like smell, which is not present in *porrigo*. 4. In *favus* the hair is affected with the malady; and under the microscope, we see the parasite which is the cause of the disease. In *porrigo* the hair is not affected; and if we find a parasite, it is quite different from that in *favus*. 5. The scab in *favus* is cup-shaped, and the development is rapid and regular. In *porrigo* the scab is flat, stuck on to the parts, and the development irregular.

Bazin gives the following chemical diagnosis of *favus*. Distilled water at the common temperature or boiling, rectified spirit, ether, chloroform, do not dissolve the pure mass of *favus*. It is left unaltered, whilst fatty matters are easily dissolved. The epithelial masses become thin by this treatment. Ammonia renders the *favus* mass a little paler, but does not dissolve it; whilst it dissolves pus and impetiginous crusts, forming a milky gelatinous mass. An alcoholic solution of potassa, especially on being heated, dissolves *impetigo* crusts, pus, skin, hair, and fatty matters; but not *favi*.

* Dr. Gull of Guy's Hospital is my authority.

From Eczema. 1. The history of the case is a means of diagnosis. 2. In porrigo the scab is a psyracium; but in eczema the scab resembles that of chronic psoriasis. 3.*In porrigo we have a pustular, in eczema we have a serous scab. 4. In eczema we have great heat of parts, and small superficial ulcerations, more or less constant oozing of a serous discharge, which we have not in porrigo; but in both we have glandular enlargement. 5. Eczema is non-contagious, whilst porrigo is contagious. 6. Eczema affects all ages, and the eruption is chiefly general, extending over large surfaces; whilst in porrigo it affects children and is more local.

CAUSE. The disease arises from direct infection, by using combs, brushes, caps, towels, etc. It often occurs in children during the period of dentition, and most frequently during the damp season of the year, and in sudden changes of the atmosphere. It most commonly attacks children between the ages of 3 months and 12 years. Improper feeding and bad ventilation produce it; and it is sometimes (though rarely) caused by vaccination. The general health is as usual, except in severe cases.

What is the cause of the infection? In my mind, this depends upon a vegetable parasite, which, I believe, has not hitherto been described by any author. I have examined fifty or sixty cases carefully, with only a vague result; for in some I have found the same parasite, and in others I have quite failed to discover it. The parasite which I have found is a cryptogam, and is very similar to that found in sycosis, but differing in size. It consists of a stem with branches and spores; about the hair itself I have failed to discover any disease. I am of opinion that this disease is very similar to sycosis; both being dependent upon the same parasite.

I tried the following experiment three years ago.

J. B., a warder at Cold Bath Fields, came under my care for sycosis menti, which had resisted treatment. He allowed me to inoculate his arm from his chin. In seven days, there was a distinct porriginous scab; viz., a psyracium surrounded by no inflammatory base. The same parasite was found in it as in the chin; and the disease yielded to the same treatment, except that the arm got well first.

TREATMENT. This is very simple and effective. I generally treat all the cases coming under my care as Mr. Startin does at the Skin Hospital; viz., by the internal administration of iodide of potassium, and the application of compound sulphur ointment of the Skin Hospital *Pharmacopœia*.† But any other antiparasitic treatment would do; and, in a large number of cases, no medicine is at all necessary. I have very often used, with a good effect, alkalies; viz., magnesia, sesquicarbonate of soda combined with a little colchicum, and an ointment composed of three grains of nitric oxide of mercury and half an ounce of lard, with three drops of creasote.

But the most important point is to remove the scab. The head must be kept clean by washing it with the yolk of an egg and warm water, the use of soap being avoided. In some extreme cases, bread and water poultices over the scab are of great service. A regulated diet is important; it should not be overstimulating, and the meals should be taken at regular hours. Sweets of every kind, pastry, salted food, are not to be taken. Beer, wine, and spirits should be strictly prohibited. I now cite the following cases, in proof of the correctness of my diagnosis, and the treatment consequent thereon.

CASE I. J. S., aged 4 months, applied at the Farringdon Dispensary, March 1860. About a week previously,

the mother observed that the child had a sore head. She found a scab upon her breast, and a whitlow on her finger; and, upon inquiry, discovered that the girl who had tended the child during her absence from home was suffering from the same disease. Upon examination, I found that the child had porrigo contagiosa. The scalp alone was affected. The glands in the neck were very much enlarged. The mother had a true porriginous scab upon the breast. This was the first instance in which I found the parasite. In all three patients I found it. They were put under treatment, and soon got quite well. The whitlow on the mother's finger I opened; it discharged a thin watery pus.

CASE II. J. B., aged 2 years, came to the Dispensary in 1860. He had always had good health. The disease first showed itself four weeks before. He had been under treatment, but had derived no benefit. The whole of the scalp was more or less affected with the disease; also the nose and back. Another child, who slept in the same bed, was likewise affected. The glands in the neck were very much enlarged, and one had suppurated. There was no distinct cause, except that the child went to an infant school, where many of the children had eruptions; and the same parasite was found as in the former. The other child came to the Dispensary the following week. The legs, back, and head were affected. The same parasite was found. In both, the disease yielded rapidly to treatment.

CASE III. A. B., sister to the above, came to the Dispensary this year. The child was quite free from any disease till vaccinated. The mother stated that the child from whom her baby was vaccinated had an eruption on its face. On both arms, where the child had been vaccinated, were distinct porriginous crusts; and the child had porrigo on other parts of the body. Two more children in the same family caught the disease; and the mother had whitlows and porriginous scabs upon her chest. I found the parasite in two of these cases. They all soon got well under treatment.

SOME ACCOUNT OF THE OPERATIONS PRACTISED IN THE NINETEENTH CENTURY FOR THE RELIEF OF TENSION OF THE EYEBALL, GLAUCOMA, Etc.

By JAMES VOSE SOLOMON, F.R.C.S., Surgeon to the Birmingham and Midland Eye Hospital.

[Read before the Midland Medical Society, February 3rd, 1863.]

[Continued from page 509 of last volume.]

Division of the Ciliary Muscle. [It was shown in the first part of this article, that Mr. Hancock's theory of acute glaucoma being dependent upon an arthritic condition of the blood, and spasm or constriction of the ciliary muscle as evinced by a conical state of the cornea, were unsupported by the cases which he had appended as illustrative of his views. I now proceed to offer some other objections to his opinions, which, in part, arise out of a consideration of the physiological anatomy of the choroid and ciliary muscle.]

In the first of a series of articles on "Incision of the Ciliary Muscle," published in the *Medical Times and Gazette* (Jan. 19, 1861, p. 56), I remark: "The existence of ganglion-cells in the choroid (Müller and Schweiger), and the arrangement of its vessels (and nerves) indicate the importance of it in the nutrition of the eye. Is it probable that with such nervous and vascular endowments, the function (circulation?) of the choroid is made subservient to the greater or less tension of a muscle, which, among civilised nations, almost equals in activity that of the eyelid; which, in many occupations—watch-makers, engravers, etc.—is maintained for eight or ten hours of the day in constant contraction, without ren-

* Dr. Gull.

† Compound sulphur ointment.—R. Sulphuris sublimati ʒss; hydrarg. ammonio-chloridi. ʒss; hydrargyri sulphureti cum sulphure ʒss; contereunda misceantur; et adde olei olivæ ʒii; adipis recentis ʒvi; creasoti grtss iv.

dering such employments specially liable to glaucoma or choroiditis? Is it credible that this little delicate muscle, which is only one-eighth of an inch broad, and which is arched to the curve of the case of the eye, and so rich in nerves as to have been mistaken by the older anatomists for a ganglion, possesses such power as to be able to invert by spasm or constriction of its fibres, the arch of the tough fibrous sclerotic, at a point corresponding to its position, and to cone the cornea? According to my observations, before the arch of the sclerotic will suffer inversion or flattening, so as to form a kind of neck to the cornea, its structure must be weakened, either by inflammation of the choroid when it becomes thin, or by a fracture from a blow—as, for example, where the lens has been subconjunctivally dislocated, in which case the cornea has a tendency to become conical. If it be replied that it is the circular, and not the radial fibres, which are in a spasmodic or constricted state, then we should expect the patient would obtain more distinct vision from concave glasses; whereas, in glaucoma, we find he corrects the presbyopia which precedes the impaired vision by wearing convex glasses. Moreover, it has never been explained (by Mr. Hancock) how an incision in the direction of the radial fibres relieves the assumed spasm or constriction of the muscle in question. Assuredly, if an organ like the thoracic diaphragm were in a state of spasm (and its division had been decided upon as practicable and proper), the surgeon would not incise it in the direction of its fibres, but contrariwise. Nor can I admit what is observed in spasm of the sphincter ani, and the relief of it by myotomy, bears any sort of analogy, as stated by Mr. Hancock, to the treatment of glaucoma by cutting asunder the ciliary muscular circle. Before such illustration can be considered of argumentative value, it must be shown that the relation of the vessels to the direction of the fibres in the two muscles is the same. Mr. Hancock is too good an anatomist to be unaware that the hemorrhoidal vessels which suffer compression and congestion in spasm of the sphincter ani run longitudinally in the gut, and at right angles with the muscular fibres; whereas, the radial fibres of the ciliary muscle and their vessels run parallel,* or nearly so, and, consequently, the latter are not constricted by the former."

To these arguments, Mr. Hancock has never attempted the slightest answer.

But it may be suggested, if there is not spasm, may there not be such constriction of the ciliary region that the eye will expand rather in its antero-posterior axis than laterally, and thereby a conical cornea and a groove over the ciliary muscle be produced?

Modern clinical observations conducted by Von Gräfe, Bowman, and Donders, are entirely opposed to such a view. These authorities agree that, in consequence of the intra-ocular pressure, the cornea, in glaucoma, has a tendency to become flat.† Indeed, it is obvious, on mechanical principles, that the arch of the cornea cannot be lessened without a proportionate expansion of the sclerotic ring (ciliary region) with which its base is continuous. But, while insisting on this view, I by no means pretend that any form of eye is prophylactic of glaucoma; we know that conoidal and buphthalmic eyes sometimes become the seat of the glaucomatous process. Such occurrence, however, is accidental, and in no way in the relation of cause and effect.

One more observation, and I will dismiss the pathological views propounded by Mr. Hancock. If it be

* The vessels of the ciliary muscle resemble those of unstriped muscle in abundance and arrangement, and indicate in the most decided manner the backward direction of the fibres, from their origin at the junction of the cornea and sclerotic, towards the anterior region of the choroid. (Bowman's *Lectures*. London: 1849, page 53.)

† It has been experimentally shown that excessive tension of the eyeball lessens the curvature of the cornea.

true that an arthritic condition of the blood-vessels and ciliary spasm be the main elements in the production of the glaucomatous state, then a resort to operative measures certainly cannot be needful. The patient will only require to be armed in one hand with a solution of atropine to relax his ciliary muscle, and in the other with a supply of antiarthritic medicine to depurate his blood of its *materies morbi*, and in due time he should be cured. Judged by his papers in the *Lancet*, Mr. Hancock has not yet essayed anything in a direction so consistent and logical with the principles for which he contends.

I witnessed for the first time the performance of division of the ciliary muscle on a casual visit to the Westminster Ophthalmic Hospital on Friday, June 1st, 1860, exactly a week after a notice of my treatment of near-sightedness by intraocular myotomy had appeared in the *BRITISH MEDICAL JOURNAL*, and on the same day that the London edition of the *Medical Times and Gazette* drew attention to the subject, and to certain particulars wherein intraocular myotomy differs from division of the ciliary structures, as practised by Mr. Hancock.* The procedure which I witnessed was as follows. The patient being seated in a chair, the eyelids were held widely apart by an assistant, who stood behind him. Mr. Hancock, having placed his left hand on the patient's face, plunged with his right a large sized Wenzel's cataract-knife into the eyeball near to the rim of the cornea, and cleft the ciliary structures by an incision which radiated from the cornea in the space between the external and inferior pectus muscles. This sudden stab, as a matter of course, excited spasm in the external muscles of the globe, and consequently an emission of the aqueous and vitreous humours. In the case of a much enlarged eye, the vitreous body was so exceedingly firm, that none escaped, although the opening was extended to nearly half an inch in length; the diameter of the globe being enlarged, and the vitreous acting as a tent in the wound.

It is remarkable that the advocates of the operation, having in view the reduction of ciliary spasm, do not avail themselves of the use of chloroform, and limit the operation to a slow, methodical division of the sclerotic and ciliary muscle, taking care to avoid disturbance of the vitreous humour.

Mr. Hulke, after having witnessed this proceeding, publicly expressed the opinion that it differed in no respect from paracentesis of the sclerotic, as practised by Desmarres and others, with a view to lessen the contents of the globe. In reply, Mr. Hancock vindicated his treatment of acute glaucoma by publishing a case of recurrent iritis, or irido-cyclitis, which he had benefited, although no fluid was noticed to follow the incision.

This attempt to prove the value of an operation in a certain and peculiar disease (glaucoma), by showing its utility in one of an entirely different nature, must be admitted to be more plausible than conclusive. The following summary of the case to which reference has been made (*Lancet*, 1860, Case 15) is here given, as it exhibits in a striking manner the sort of clinical reports upon which Mr. Hancock founds his practice and commends it to the judgment of the profession.

A lady, aged 26, was treated during three years by mercury, tonics, and an issue in the arm, for an iritis of the left eye, which, notwithstanding, terminated in "a progressive opacity of the lens and capsule, a contracted and irregular pupil," and the "utter extinction of vision." Subsequently iritis attacked the right eye. It recovered, and remained well for two years, when it became the seat of asthenic irido-cyclitis (inflammation

* "In this operation, the incision does not radiate from the lens and ciliary attachment of the iris, as it does in Mr. Hancock's operation for acute glaucoma; hence the diameter of the globe behind the diaphragm (iris) is not increased." (*Medical Times and Gazette*, June 2nd, 1860, page 548.)

of the iris and ciliary body of the choroid). Mr. Hancock, on being consulted, divided the ciliary muscle. No fluid was discharged, and vision was restored.

In the *Lancet* for September 13th, 1862, p. 279, and under the heading of Case 22, some additional particulars of this lady's case are given, which deserve attention as bearing upon the credibility of the papers under review. "Soon after September 5th, 1860, the left eye became less satisfactory; the vision rapidly failed; the pupil became insensible to light, and occupied with fragments of pigment."

Inasmuch as the same organ had been already reported (*Lancet*, 1860, Case 15) as having been affected with "progressive opacity of the lens and its capsule" (capsulo-lenticular cataract), and "utter extinction of vision", the reader is puzzled to understand in what way it could possibly "become less satisfactory", unless from a general disorganisation of its tissues; and the process whereby "the utter extinction of vision" was converted into a "rapid failure of vision" is equally mysterious.

In October, iridectomy was proposed to the patient, and rejected by her. All medical treatment was now dispensed with; and, by Christmas, the eye in which there was cataract and "utter extinction of vision" had so far recovered itself that small print could be read with it! So brilliant and marvellous a result having been got without the aid of the doctors, we are startled on reading that medical advice was again sought, and a constricting band placed upon an hæmorrhoid which had bled much (indeed, apparently during the several years the eye was under treatment). Misfortune, however, still remorselessly pursued this unfortunate woman; for the cataractous eye, which read small print on Christmas Day, 1861, again failed. Division of the ciliary muscle was performed at the beginning of 1862. "Notwithstanding," says the report, "the attack was very obstinate; but she was ultimately restored to sight." The degree of impairment of vision is not stated.

It is upon such clinical evidence as the preceding that Mr. Hancock asks his brethren to adopt division of the ciliary muscle as a cure for acute glaucoma, in preference to iridectomy.

I have given the method a very extended trial in public and private practice, and I regret to say that it has uniformly disappointed me as a means of permanent relief in glaucoma. My experience fully corroborates that of Desmarres and Bader, that it is merely a palliative. In many cases it has not even this merit, but proves positively detrimental to the interests of the patient, by preventing the adoption of a really useful plan of treatment at the outset of the disease.

The accidents which I have witnessed to follow its employment are ophthalmitis and atrophy of the globe. The latter event occurred to a patient who, from being blind, was enabled to count fingers immediately after the turbid humours were discharged from the eye.*

If a close investigation be made of Mr. Hancock's method, the claims he has made to originality must be seen to have been anticipated by other ophthalmic surgeons.

He cuts the ciliary muscle; so did Whyte and Desmarres.

His incision is made in the space between the inferior and external rectus muscles; so was that of Desmarres.

He plunges with force a large lance-shaped knife into the globe, and extracts vitreous: Desmarres did likewise, and published his results years before Mr. Hancock discovered (?) "division of the ciliary muscle".

He repeats the paracentesis on the same eye for the

same disease; so did Desmarres, and moreover publicly avowed the necessity of the practice, which his imitator has not done.

Mr. Hancock asserts that the operation cures glaucoma. Desmarres candidly admits it produces no more than beneficial arrest in the disorder ("detente salutaire").*

Desmarres sometimes pierced the sclerotica behind the insertion of the ciliary muscle, without apparently obtaining any appreciable difference in his results. Whyte, as has been already remarked, always cut the muscle for the relief of tension.

These facts having been laid before the Society, its members will find no difficulty in deciding whether Mr. Hancock is in a position to claim originality for the slight modification, if any, which he has made in the mode of performing sclerotic paracentesis in cases of acute glaucoma—a measure of relief which was first suggested by Mackenzie, extensively practised by Desmarres, and which, in the hands of every surgeon who has given it an extended trial, has failed to cure idiopathic glaucoma.

Progress of Medical Science.

CAUSES OF DEATH AFTER OPERATIONS FOR HERNIA. Dr. Rupprecht of Munich, in a paper on the favourable and unfavourable results of hernia operations, describes recovery as taking place in the following ways. 1. Perfect recovery: a. the external wound being healed by the first intention; b. the wound being healed by supuration and granulation, often with simultaneous radical cure of the hernia by adhesive inflammation; c. recovery preceded by peritonitis, which may or may not leave strong adhesions. 2. Imperfect recovery; a. with stricture of the intestine, as the result of gangrene; b. with formation of an artificial anus, also produced by gangrene.

He then speaks of the causes of death after the operation, arranging them under the heads of peritonitis, morbid changes in the intestine, shock, internal hæmorrhage, and pyæmia.

1. Peritonitis may set in very rapidly after the operation. It most frequently occurs when a large quantity of intestine has been protruded, and has been exposed for some time to the air during its replacement. It is also very liable to occur, when there has been very tight constriction and consequent considerable hyperæmia of the intestine; and especially when the operation has been preceded by repeated and rough attempts to reduce the hernia by the taxis. Very frequently, also, peritonitis occurs when a portion of the hernial sac has been cut away, or even when the omentum, after a portion has been removed, has been tied and reduced, as the ligatures not unfrequently exert no small amount of irritation on the peritoneal surface. The peritonitis sets in with rigors and nausea, soon followed by vomiting, generally of a green colour; the abdomen is somewhat distended, very tender on pressure; exceptions being afforded in the cases of those who have taken large doses of opium, or who are still under the prolonged influence of chloroform, and in whom therefore there is less tenderness. Even though all appears to be going on well after an operation for hernia, the surgeon must not lose sight of the possibility of the occurrence of peritonitis. It often happens that, when the intestine has been reduced and all obstruction has been removed, no evacua-

* As a remedy for myopia, it is deceptive and dangerous. In the course of a few months, the patient finds his myopia to have returned, his adjustment destroyed, and that spectacles are no longer of any service to him.

* "On pourra faire tomber la douleur et disparaître l'accès, par des ponctions pratiquées de temps en temps au travers de la sclérotique; il en résultera de cette façon une détente salutaire." (*Traité des Maladies des Yeux*, p. 767. Paris: 1847.)

tion follows; and it would be a great error to treat such a case by violent remedies. In the meantime, a larger or smaller portion of the intestine may become gangrenous and burst, pour out its contents into the abdomen, and thus produce fatal peritonitis on the sixth or tenth day after the operation. It more rarely happens that a slow peritonitis sets in at a late period.

2. With regard to the intestine, it is evident that, if any portion of this do not perform its function, and the peristaltic movement in it cease, death will soon take place.

Paralysis of the intestine is a further cause of death after herniotomy. This paralysis is usually induced by a very considerable and prolonged constriction of the intestine at the ring; the gut may not recover itself after the operation, and hence neither are the ordinary evacuations produced, nor does the peristaltic action take place which is necessary to the further performance of the intestinal functions. Three years ago, Dr. Rupprecht performed herniotomy on a man aged 73, in whom, nine hours before his admission into the hospital, incarceration took place in a large but hitherto easily reducible hernia. The symptoms being urgent, and the taxis having failed, an operation was performed. The sac contained about four feet of intestine, with some omentum; it was much distended, although there was not a remarkable amount of effusion present. The operation appeared successful; and the passage of a large amount of flatus led to the belief that the intestine had soon become pervious. The patient passed a good night; but, after a few days, the abdomen suddenly became distended; no further evacuations took place; the pulse became small and quick; and death took place on the seventh day. On *post mortem* examination, the vessels of the portion of intestine which had been constricted were full of blood, so that the intestine here had a dark blue red colour. The rest of the abdomen was free from disease; the wound made in the abdominal ring had healed; there was no trace of peritonitis, but death had evidently been produced by paralysis and incipient gangrene.

In some cases, after herniotomy has been performed, and the intestine has been replaced, stercoreaceous vomiting, and violent dragging pain in the abdomen, indicating obstruction of the intestinal tube, set in at an earlier or at a later period. These may be produced by a renewal of the hernia through coughing or any similar effort, or from internal incarceration. In such cases, the surgeon should remove the dressings, reopen the wound, and cause the hernia to be reproduced by coughing or by pressure, so that he may relieve the constriction. This proceeding, however, is very liable to be followed by fatal peritonitis. In a case that occurred in the practice of one of Dr. Rupprecht's colleagues, an operation for hernia was performed on a woman, and all appeared to be going on well, when symptoms of obstruction suddenly set in. On examination, it was found that, notwithstanding that the patient had been kept quiet in bed, a hernia had become strangulated on the other side. This was reduced by the taxis, and the patient recovered.

In some cases, especially in large and old herniæ and in aged people, an operation may become necessary in consequence of the impaction of the intestine with feces or indigestible substances. Death from peritonitis is very liable to occur, especially in old persons.

The intestine may be wounded in the operation, especially when the sac is opened too quickly and without sufficient care, or when the intestine has become adherent to the peritoneum. The prognosis in such cases is rather unfavourable; nevertheless, recovery has been known to take place. If the strangulation be tight and of long duration, the hyperæmia is often so great, that a vessel is ruptured, and the serous contents of the sac are tinged with blood. This is a very unfavourable

symptom; and gangrene finally takes place in most of the cases in which it occurs. Morowek has collected 1854 observations of the changes which the intestine undergoes after strangulation. Among them he has found ulceration of the mucous membrane, ending in stricture; also adhesions, the result of inflammation between the omentum and the internal ring, giving rise to a liability to the production of internal strangulation. Phlegmonous inflammation of the omentum, not unfrequently passing into abscess, may also, as has been described by Goyrand, take place after herniotomy.

8. In some cases, where death follows herniotomy, no cause for it can be discovered in the parts operated on nor in the abdomen. The fatal event must here be attributed to the shock of the general system produced by the operation. An analogous instance occurs sometimes in the production of collapse and death by the introduction of a catheter, or even by the extraction of teeth. This disposition to fatal collapse occurs chiefly in old and very fat people, probably because the former have atheromatous degeneration of the blood-vessels, and the latter fatty degeneration of internal organs, especially the heart.

4. Internal hæmorrhage may be a cause of death. The surgeon may cut away a portion of protruding omentum, and, finding no bleeding of any importance, may return the rest of the omentum without applying a ligature. Now, the absence of hæmorrhage has arisen in part from the pressure which has been exerted on the omentum by its strangulation, and in part from the weakening of the heart's impulse by chloroform. If these points be overlooked, and the omentum returned, the removal of the pressure on it and the re-establishment of the heart's action are very liable to produce hæmorrhage into the abdominal cavity, and the patient dies, partly from the loss of blood, partly from the peritonitis which is readily induced by the hæmorrhage. Hæmorrhage may also take place into the cavity from the wounding of vessels in the abdominal walls.

5. Death from pyæmia after herniotomy occurs very rarely in private practice, but is more common among hospital patients. It generally arises from over-crowding; and Dr. Rupprecht suggests that if patients after operations were more isolated, and kept in single rooms, the difference between the results of hospital and of private practice, as regards the occurrence of pyæmia, would be greatly diminished. (*Wiener Med. Woch.*, Aug. 29, Sept. 5 and 12, 1863.)

POISONING BY ARSENIURETTED HYDROGEN. Arseniuretted hydrogen is said to be one of the most poisonous compounds of the metal; but the recorded instances of poisoning by it are very rare. A case has lately occurred in M. Piorry's wards at La Charité.

B., aged 22, employed in a chemical manufactory, was engaged in some researches on the production of colouring matters from aniline. In one of his experiments, he set free a large quantity of arseniuretted hydrogen, which became spread through the atmosphere of his laboratory (this was at 7 A.M.). About an hour afterwards, he felt a rather violent pain in the head, which made him open the window for some minutes. He then resumed his work for two hours. At half-past ten, he took a meal, without perceiving anything particular. An hour afterwards, the headache increased; pain in the epigastric region set in; and vomiting of the food took place. The patient was carried to the Charité Hospital; and, while being taken thither, he vomited three times.

On admission, his face and lips were pale; he walked with difficulty; had an intense frontal headache, and very violent pain towards the lumbar region; there was a feeling of constriction at the base of the lung and the breathing was quickened; there was no cough, no auscultatory râles; and the sounds of the lungs were normal

He had much thirst. There was no pain nor tenderness of the abdomen. The extremities were cold. There was no disturbance of the senses. He was treated by the application of sinapisms, frictions, and bottles of hot water; and by the administration of diuretics, acetate of ammonia, and an enema of senna. In about half an hour, the patient became warm, his body slightly moist, and his breathing more easy; but he still complained of general uneasiness, and especially of pain in the loins. The motor power seemed to be unaltered. The pulse was 110, sufficiently full and regular. The region of the liver was tender. At 5 P.M. he passed two abundant fetid stools; and some time afterwards passed, without pain, almost 220 grammes (7 ounces) of red urine, in which not a single blood-globule could be discovered. Vomiting of greenish matters was produced by even the smallest quantity of drink. At half-past 10 P.M. the headache was more intense, and the face animated; the conjunctivæ were injected; the pulse was strong and frequent. He spoke with difficulty, and answered questions slowly. He was bled to 500 grammes (above a pound avoirdupois), and was almost immediately relieved. The headache and pain in the loins diminished. The respirations were 20; the pulse 95. The vomiting, however, continued; and drink could not be borne. At 1 A.M. M. Piorry was called to the patient, and found him with a flushed face, hot skin, pulse at 100, regular, of tolerable size. His intellect was entire, and he answered questions distinctly. The vomiting had ceased. Large quantities of drink, and repeated simple enemata, were prescribed. A purgative injection was given at three o'clock, after which he was placed in a bath. After this the patient felt somewhat better, though still much weakened.

The following day, the face had an earthy yellow colour; the skin was dry; the pulse 104; the tongue was dry; and he had great thirst, and an air of hebetude. There was pulmonary congestion posteriorly. The patient had not passed urine.

On the third day, the patient was in a drowsy apathetic state. The conjunctivæ were again injected. There was a marked diminution in the quantity of the urine, which retained its red colour.

On the fifth day, after an apparent but transient improvement, the patient's condition became notably worse. The urine was again suppressed; the tongue and lips were covered with dark sordes; the skin had a bronze colour; the pulse became imperceptible, and the respiration quick and laboured; the intellect was destroyed. He died in the evening.

At the *post mortem* examination, there were found to be congestion of the liver without change in the hepatic cells, softening of the spleen, and increase in the size of the kidneys, with considerable injection, especially in the tubular portions. There was also a granular state of the cells both of the cortical and of the medullary portions. (*Gazette des Hôpitaux*, 13 Octobre 1863.)

REPAIR OF TENDONS AFTER TENOTOMY. MM. Demarquay and Leconte, in a memoir on this subject, state that numerous facts show that the daily admission of air to tendons divided by subcutaneous section not only does not prevent their union, but does not sensibly retard it. The accidents which complicate certain cases of tenotomy cannot then be attributed to the fortuitous introduction of a little air into the wound at the moment of operation. Air, in contact with living animal tissues, rapidly loses almost all its oxygen, which is replaced by carbonic acid; so that the wound is in contact with a mixture of nitrogen, carbonic acid, and a very small amount of oxygen, which exerts little or no action. Daily injections of pure oxygen retard slightly the repair of tendons, and cause the wounds to assume a bad aspect; and hence, if *primâ facie* conclusions be drawn, there may be attributed to oxygen an intensely mis-

chievous action on the reproduction of tendons—which it does not really possess. Oxygen, even in a pure state, and injected every twenty-four hours, has been found by MM. Demarquay and Leconte not to possess the hurtful properties which have been attributed to it. This, they consider, was doubtless to be attributed to the smallness of the quantity of oxygen which they were able to inject, and to its rapid replacement by carbonic acid; for large quantities of oxygen brought into contact with open wounds produce much stimulation, which may become pathological, if the action of the gas be prolonged several days without being watched. The authors of the memoir observe that it is not rational to draw conclusions from the action of oxygen as to that of the air, and *vice versa*. In the air, the oxygen is diluted with nitrogen, and may be considered in a state analogous to that of an active local remedy diluted with a large quantity of water. (*Archives Génér. de Méd.*; and *Gazette Méd. de Paris*, 3 Octobre 1863.)

Reviews and Notices.

URINE, URINARY DEPOSITS, AND CALCULI; AND ON THE TREATMENT OF URINARY DISEASES. With Numerous Illustrations, and Tables for the Clinical Examination of Urine. By LIONEL S. BEALE, M.B., F.R.S.; Fellow of the Royal College of Physicians; etc. Second Edition. Pp. 439. London: 1863.

A GUIDE TO THE QUALITATIVE AND QUANTITATIVE ANALYSIS OF THE URINE, designed especially for the Use of Medical Men. By Dr. C. NEUBAUER and Dr. C. VOGEL. Fourth Edition, considerably altered and enlarged, with Four Plates and Twenty-eight Woodcuts. Translated by WILLIAM O. MARKHAM, F.R.C.P.L., Physician to St. Mary's Hospital. Pp. 439. The New Sydenham Society. London: 1863.

THERE is no room for apprehension on the part of the British medical practitioner, that he will not be kept *au courant* with the latest and most elaborate of the researches made both by his own countrymen and by continental observers on the physiological and practical chemistry of the urine. The great advances which have been made in our knowledge of this matter during the last few years have been laid before the profession in the works of Thudichum, Parkes, Beale, Hassall, etc.; and since the last summer there have appeared the two works whose titles stand at the head of this article; viz., a second edition of the able Lectures of Dr. BEALE; and a translation, issued under the direction of the New Sydenham Society, of the elaborate Guide of the well-known German urologists, Drs. NEUBAUER and VOGEL.

When the first edition of Dr. Beale's work appeared, it mostly consisted, as will be remembered, of the lectures which had been published by him in the BRITISH MEDICAL JOURNAL. In the present edition, the author has abandoned the lecture form, and has made his work a manual, dividing it into chapters. As regards its contents, the general arrangement has been preserved; but some important additions have been made—to the amount, the author says in his preface, of nearly 100 pages; besides which, a considerable part of the work has been rewritten. The contents of the volume are arranged under the following general heads: Chemical and

Microscopical Apparatus for the Clinical Examination of Urine; the Volumetric Process of Analysis; Examination and Preservation of Urinary Deposits; the Anatomy of the Kidney, and its Action in Health and Disease; Urine in Health; Urine in Disease; Urinary Calculi; Summary of the most Important Constituents of Urine in Health and Disease; and Tables for the Systematic Qualitative Analysis of Urine. There are also twenty-four plates, containing 133 figures.

A translation of the third edition of the *Guide of Drs. Neubauer and Vogel* was announced by the New Sydenham Society more than two years ago. It was completed in manuscript; and some sheets had been printed, when the announcement of a fourth edition of the German work induced the Society and the translator to delay its issue for a time. The authors of the original work have very courteously furnished the translator with proof-sheets of the new edition while it was passing through the press in Germany; so that the English version has appeared very soon after its original on the continent.

In the construction of this book, the first division is by Dr. Neubauer, while the second has fallen to the share of Dr. Vogel. The first division consists of the three parts, in the first of which are described the normal and abnormal constituents of the urine, inorganic and organic sediments, and accidental constituents; the second describes the quantitative analysis of the urine; and the third, the method to be followed in the qualitative and quantitative analysis. In the second division, Dr. Vogel treats of the general semeiology of the urine, or the application of its qualitative and quantitative examination to diagnosis. Under the head of qualitative changes, he notices the changes in the colour, appearance, and odour; chemical reaction; the presence of unusual and abnormal constituents; and sediments. The second part comprises a notice of quantitative changes, those being first described which are appreciable without the use of chemical analysis, and then those which require the aid of chemistry for their demonstration.

These two books differ in the manner in which certain subjects are elaborated in them. Thus, for instance, Dr. Neubauer devotes more than eighty pages to the subject of volumetrical analysis; while Dr. Beale is much more concise. On the other hand, Dr. Beale enlarges on the anatomy of the kidney, and on the formation of casts of the urinary tubules; and has, in the present edition, made some useful practical additions in the nature of remarks on treatment. On the whole, it may be said that the German authors are more elaborate than Dr. Beale in the details of the subjects which they notice; while the latter describes at some length several important points which are not referred to, or but slightly so, in the work of Drs. Neubauer and Vogel.

As an illustration of the manner in which the authors of the two works treat their subjects, we may take their remarks on the presence of bile in the urine. Dr. Neubauer (pp. 84-91) describes the presence of the bile-pigments and bile-acids of the urine, the chemical characters of these substances, and the means of detecting them. At pp. 314-316, Dr. Vogel describes the diagnostic indications derivable from the presence of these matters, and,

without discussing any of the theories propounded by other observers, expresses his opinion that the presence of bile in the urine is to be attributed to its reabsorption from the liver, in circumstances which prevent its escape into the intestines. As to the biliary acids—the taurocholic and glycocholic, which he calls collectively cholic—he explains their absence from the urine in jaundice to the non-interference with the changes which he supposes them to undergo, in the normal condition, in the blood. But, on the whole, he regards our knowledge of the changes of the biliary acids as very incomplete, and observes that

"We shall not be able to determine fully the diagnostic and prognostic value of the presence of cholic acid in the urine until we have ascertained the nature of the conditions which prevent its disappearance in the blood."

Dr. Beale, in speaking of the presence of bile in the urine, takes the opportunity of making some remarks on the debated question of the mode of production of jaundice. He refers to the researches of Frerichs, Kühne, Harley, Thudichum, etc.; and, as to the changes of the bile-constituents in the kidney, he expresses himself in favour of the doctrines of Kühne rather than those of Frerichs.

"It seems to me that the view that in certain cases of jaundice there is suppression of the action of the liver, that the liver does not produce bile, and that no biliary acids are formed, is opposed to very many facts; and I have been led to incline toward the view that in all cases of jaundice the bile has been formed by the liver-cells, and has been reabsorbed after its formation, and perhaps much of it again excreted in an altered form by the intestines. It is easy to conceive that the relative proportion of the biliary acids and colouring matters produced may be very different in different cases; that the quantity of the acids formed may vary greatly; that their composition may be affected—taurocholic acid being produced instead of glycocholic acid (Kühne); and that other chemical derangements may be caused without the action of the liver-cells being suspended." (P. 215.)

He then goes on to describe the treatment of jaundice. In those cases which commonly occur during the summer months, and are not connected with organic disease, Dr. Beale speaks strongly in favour of mild counterirritation over the liver.

"Even the application of cold wet cloths for half an hour now and then will relieve the pain, sense of fullness, or uneasiness, about the hepatic region; but rags steeped in equal parts of strong hydrochloric acid and water, applied for half an hour daily, form the best application. This application, which I learned from Dr. Blakiston, is of great service, not only in actual jaundice, but in cases of temporary biliary derangement generally. The acid may, perhaps, act through the cutaneous nerves, by exciting the biliary ducts and gall-bladder to contract. It also causes action of the colon." (P. 216.)

We might go on to great length, comparing these two books; but we must conclude with a few words on each. As to Dr. Beale's work, we have, on a former occasion, spoken so fully on its merits, that little remains now to be said. Its author has continued to shew himself to be at once a scientific and practical physician. The additions which have been made to the work, and the care which the author has taken in improving it from his own experience and from the results obtained by his fellow-labourers, justify us in reiterating what we said in noticing the first edi-

tion; that, after a careful perusal of the work, we are satisfied that, whether for its thoroughly practical and experimental tendency, or for the completeness and erudition of its articles, it stands second to no treatise on the subject in the language.

Regarding the work of Drs. Neubauer and Vogel, the well-known chemical skill and clinical knowledge of its authors render any comment almost unnecessary. We have already pointed out its principal characteristics, and have alluded to the richness in chemical details which forms the chief feature of Dr. Neubauer's portion, while the application of urological knowledge to the diagnosis of disease is ably expounded by Dr. Vogel.

Of the merits of the two works, weighed one against the other, readers must judge for themselves. To our view, both are excellent; yet neither so perfect, that it might not be in various matters supplemented by the other.

A PRACTICAL TREATISE ON TRAINING, GYMNASTICS, AND RIDING. By A SUBALTERN. Pp. 69. London and Liverpool: 1863.

THIS is a cheap and simply written little book, giving information as to the manner of performing various healthy bodily exercises. The instructions given by the author are generally judicious; they refer to sleep, bathing, clothing, diet, moral and other influences, training, walking and running, dumb-bell exercise, club exercise, facing, marching, etc., and riding.

There is scarcely anything, if anything, in this book, to which objection can be taken on medical grounds; and the author is so careful in fixing proper limits to the hygienic resources of which he treats, that he observes that "Turkish baths should not be taken except under proper medical advice". The book, taken as a whole, is a very useful production; and our associates can with advantage recommend its introduction into the families of their patients.

THE GERMAN UNIVERSITY DEGREE TRADE. We are glad to report the trade of obtaining German degrees for Englishmen to be in a flourishing condition. We have already published the price of Giessen, Jena, and Erlangen degrees (Giessen: Ph.D., £14:10; LL.D., £22:10. Erlangen: Ph.D., £15; and Jena Ph.D., £15), and we are now enabled to give the latest price current for Rostock, in Mecklenburg Schwerin. An individual, professing to be the correspondent of the University of Rostock, now circulates, in "strict confidence," of course, a printed tariff among those who reply to his advertisements, designating the original vendors of the degrees "a distinguished and ancient Prussian German (*sic.*) University, established at the commencement of the fifteenth century." We subjoin the latest prices:—Ph.D. and M.A. together, £12:12 (entrance £2:2, and diploma £10:10); LL.D., £17:13 (entrance £3:3, and diploma £14:10); and M.D., £30:3 (entrance £3:3, and diploma £27). The D.D. is granted as an honorary distinction to clergymen who have previously been customers. Fees equal to double the entrance fees are payable to the agent by the candidates, by way of commission, on the diploma being obtained, and if you assure the agent "that your intention is to proceed" for the degree, he will (in return, and without knowing who you are, or what are your qualifications) "assure to you the certainty of obtaining the diploma." (*Chemical News.*)

British Medical Journal.

SATURDAY, NOVEMBER 28TH, 1863.

MR. CHARLES DICKENS AND "VERY HARD CASH."

THE just indignation excited in the profession by the libellous statements on lunacy doctors lately published week after week by Mr. Charles Dickens in *All the Year Round* has at last drawn some sort of apology from that gentleman. Mr. Reade, it is true, is the author of the sensation tale, "Very Hard Cash," in which the gross mis-statements alluded to appear; but Mr. Dickens permits their publication, and is, therefore, responsible for them. Somewhat ashamed of his writer's performance, Mr. Dickens now, in a note to a late number of "Very Hard Cash," tells his readers as follows:—"The conductor of this journal desires to take this opportunity of expressing his personal belief that no public servants do their duty with greater ability, humanity, and independence, than the Commissioners in Lunacy."

Now, of this apology for the insults which have been thrown, through his highly lucrative commercial undertaking, upon the medical profession, we have to say that it is, as far as it goes, all very well; but it does not go half far enough. Mr. Dickens's journal has done a good deal more than slander Lunacy Commissioners; it has cast diabolical charges upon the character of all medical men connected with the management of lunatics, and has, therefore, insulted the whole profession. The Lunacy Commissioners have Lord Shaftesbury at their head, and are men of some mark in their way, and are not all of them doctors. They are, therefore, in a position to exert some social screw influence on Mr. Charles Dickens; but those other gentlemen—the profession at large—who have been far more grievously abused than the Lunacy Commissioners, have just as good a right to an apology from Mr. Dickens. We ask for no apology from Mr. Reade, because he is manifestly a sensation-novel writer, whose business or trade is the getting-up of literary articles of this cast. All we can say of him is, that if he believes what he writes about mad-doctors, he shows that he is utterly ignorant of the subject he is dealing with as far as they are concerned; and therefore, without due inquiry, has not hesitated, for the sake of a trade-trick and in the way of business, to asperse most shamefully the conduct of highly honourable men. If, on the other hand, he does not believe what he writes—we pity him that he has fallen into so low an estate; we do more than pity him. With regard to Mr. Charles Dickens, however, we must say, that there is for him no excuse. He has the

credit of being wealthy—of being blessed, or otherwise, with a marvellous income, through his literary properties. It is incomprehensible, therefore, that he should condescend, in this weekly production, to reduce his literary food to the condition best fitted for the ignorance or morbid appetites of the multitude, who greedily swallow sensation *morceaux*.

We would recall to his mind what the poet—Goethe's ideal poet—replied to the stage-manager, who demanded from him some low buffoonery—we may suppose of the kind touching doctors furnished in "Very Hard Cash" to Mr. Dickens:

"Geh' hin, und such Dir einen andern Knecht!
Der Dichter sollte wohl das höchste Recht,
Um deinetwillen freventlich verschmerzen."

Mr. C. Dickens has for many years stood prominently forward as a philanthropist and doer of good works, and as a sort of literary high-priest towards his fellow creatures; but, certainly, if he allow matter of this kind to spread, through his agency, over the face of the earth, and instil itself as truth into the minds of the ignorant, whom he pretends to teach and elevate, his philanthropy dwindles to very moderate proportions. He becomes a mere trader—a dealer in literary wares. Indeed, in such case, he occupies the position of the wealthy gin-merchant, who does the benevolent at large pious tea-meetings, at the time when by his industry he is assisting in the poisoning the bodies of half-a-dozen parishes.

Mr. Dickens, to speak the truth, with all his wit, has ever shown a want of wisdom or ballast—signs of a defective education, perhaps. We could again and again point to his works, and show the evil which he must have done in giving bad instruction to the people. Surely a man in his position should feel the deep responsibility which rests upon him of rightly and truly directing the large masses of semi-educated mankind, who listen to and are guided and influenced by his writings and publications.

It is a misfortune that some kind genius has not often whispered to Mr. Dickens that he has ever been over-fond of dishing-up spicy sauces, which best suit the appetite of the fashionably vulgar and the generally ignorant. He once, for example, went out of his way in a novel to work up as a fact the groundless assertion of "spontaneous combustion" of the human body. No doubt the gaping *plebs* greedily swallowed the dish; but why instruct *plebs* to believe as a truth that, which science proves to be a falsehood? On another occasion, he gives us that most astounding hash of a novel by Sir B. Lytton, in which animal magnetism is served up in a style which we fancy, must have astonished and disgusted even Purveyor Dickens himself? Was that business creditable to him? And then, again, he has not failed at the right time to have piquant ghost-stories neatly and faithfully introduced, as *entremets*, to give a fillip

to the jaded stomachs of his readers; and now, at last, wearied, we may suppose, of misrepresenting physical phenomena, or finding these diggings worked out, he now lets his journal loose upon individuals, indulging in calumnious personalities. He allows Mr. Reade to hold up to the execration of mankind invented brutalities of mad-doctors and abominations committed in mad-houses. We, therefore, again repeat it, Mr. Dickens has yet to clear himself with the profession. His apology to the Lunacy Commissioners leaves the case of the insulted profession untouched. Indeed, his words may be made to infer that he even holds good the opinions stated by his literary scribe, respecting the doings of mad-doctors in general, and their attendants in mad-houses.

But what, after all, is the meaning of these attacks on a body of most highly honourable members of our profession?

Mr. Dickens must know as well as we do that they are, at the present day at all events, utterly without foundation. He must know that the slightest whisper, founded in truth, of any of the abominations recorded as facts by his journalist, would be indignantly echoed from one end of the kingdom to the other, and the gravest investigation demanded touching them. And, if he knows this, how can he, Mr. Charles Dickens, as a philanthropist, as a man of high literary standing, as a great instructor, and as purveyor of universal literary food to the "general", reconcile it to his conscience, so tender to the good of his species in the gross, to cast such cruel, such false and slanderous imputations upon the doctor in particular? One of two things. If Mr. Dickens or Mr. Reade know that the things which they have recorded are true, why do they not indignantly denounce the *facts* and the *persons* to the Lunacy Commissioners, and have the miscreants who committed them brought to the bar of public opinion? But if neither Mr. Dickens nor Mr. Reade know of any such facts, and if Mr. Reade has consequently drawn solely on his imagination for the facts stated by him, he has committed an act which deserves public reprobation. What can justify him in dishing up slander upon a profession out of his imagination, merely for the sake of tickling the appetite of the multitude—of instilling false statements into the mind of the public—in order to "get off" his novel and make a successful trade-hit?

It must not be forgotten that Mr. Charles Dickens has the character of occasionally telling truths through his fictions, and of reforming evils by publishing them in a form of romance. Mr. Dickens is supposed, in cases of this kind, to have facts upon which he founds his fiction. For example, all the world will remember that Do-the-boys Hall was no slander or imaginative suggestion, but was an *exposé* of a real and existing state of things. When, therefore, Mr. Dickens produces such a history as is

that contained in "Very Hard Cash", there are plenty of persons ready enough to believe that his statements are true and real expressions of actual facts known to him.

Why these gentlemen have selected for their calumnies a profession to which no persons are more deeply indebted than literary men, it is hard to say, except on the ground that *such* payment is a not uncommon return for favours bestowed. We have little doubt that Mr. Reade has, one time or other, received the benefit of gratuitous medical services. But there may be one other solution to the question; and it is this; that there is no profession which possesses in so marked a degree as ours that "badge of all our tribe" which Shylock tells of—no profession which bears insults with such meekness. There is, in truth, a want of unity in the profession, and, we must say it, a want of moral courage amongst its highest ornaments to speak boldly out on such occasions as this. We have said it before, and we repeat it again: our profession does not obtain from the public the esteem to which it is justly entitled. It has not the influence over public affairs which it ought to have; and it has not all this, because it does not sufficiently respect itself. Hence it is that Mr. Reade, *per* Mr. Charles Dickens, takes delight to fling about his sensation phrases at the doctors' expense. "All men take a delight to gird at me," says Falstaff.

THE "READY METHOD" AND DR. SILVESTER'S METHOD.

We have not published, side by side, as requested to do by Mr. Lewis, Secretary of the National Life-Boat Committee, the directions laid down by that Society, and the directions lately published by the Royal Humane Society, for the restoring the apparently dead; and for the following reason. The Royal Humane Society has embodied in its newly-issued directions the principles laid down by the Royal Medical and Chirurgical Society's Committee on Asphyxia, in their Report issued July 1st, 1862. (See BRITISH MEDICAL JOURNAL, July 5th, 1862.)

This Committee, after long and careful investigation and experiment, came to the conclusion that the method for resuscitation recommended by Dr. Silvester was preferable to the "ready method" so well known of Dr. Marshall Hall; and we suspect that every reasonable person would, until further cause be shown, naturally be led to adopt the practices recommended by such a committee, in preference to any practice previously employed or recommended.

It may be well that we should shortly call to the remembrance of our readers what the main conclusions of that Committee were on the subject of the

restoration of persons suffering under suspended animation.

It must be remembered that all parties are agreed in this; viz., that the first and grand object to be attempted in these cases is the restoration of the respiratory act. Consequently, with this principle in view, numerous experiments were made by the Committee referred to, to ascertain the comparative merits of the plans recommended by Dr. M. Hall and by Dr. Silvester, and to determine the quantity of air drawn in and expelled by these methods. Under Dr. Marshall Hall's method,

"When the body, being on the side, was turned into the prone position, not more than from one to eight cubic inches of air were expelled; but a somewhat larger quantity was displaced when the arm was laid on the abdomen. The quantity of air inspired when the body was replaced was always somewhat less than that expelled. When the body was turned on the face, the quantity of air expelled was somewhat increased by pressure on the spine; but it never exceeded fifteen cubic inches."

"When the arms were carried to the head, as in Dr. Silvester's method, the amount of air taken into the chest varied from nine to forty-four cubic inches; and the results were very uniform on the same subject. On replacing the arms by the side, the quantity expired was generally rather less than, but sometimes as much as, that which had been inspired. The effect was increased by alternating the movements of the arms with pressure on the lower end of the sternum; the expelled air amounting even to fifty cubic inches."

Hereupon the Committee remark, that without committing themselves to any decided opinion as to the actual efficacy of Dr. Silvester's method, they consider that its results were more marked than those of Dr. Marshall Hall; and that it had also the advantage of beginning with an inspiration.

As regards the value of any special apparatus for producing artificial respiration, which, they considered, possessed certain disadvantages, such as that of not being always ready when required, the Committee expressed no opinion.

"The application of the actual canterly produced no good result in five experiments; nor did any good effect arise from opening the jugular vein. The rapid application of cold, suddenly alternated with heat, seemed to produce considerable effect; while the use of cold or heat alone gave rise to purely negative results. Of seven animals treated by galvanism, five died; nor were any more certain results obtained by puncture of the diaphragm. The Committee, therefore, could not speak of any of these means as being of unequivocal efficacy."

The practical deductions arrived at by the Committee were summed up in the following sentence:

"From these observations, the Committee were led to suggest that, in cases of apnoea, impediments to respiration should be removed by placing a cushion under the shoulders, drawing the tongue forward, and alternately raising and depressing the arms twelve or fourteen times in a minute. If no result be soon obtained, douches of warm and cold water should be used. The body at the same time must be kept warm, and friction should be employed. In drowning, the body should be placed higher than the head for a period of about thirty seconds, before the abovementioned means are tried."

These conclusions have, we consider, been very properly, in the main, adopted by the Royal Humane Society; and there is no doubt that we must consider them as the most authentic and trustworthy conclusions which science has yet enabled us to arrive at in this matter; the investigations of the Committee having shown that the method of Dr. Silvester is superior to the method of Dr. Marshall Hall as regards the amount of air inspired. Unless, as we have said, good cause be shown to the contrary, we consider that the profession is bound, in the meantime and in all reason, to accept as practically trustworthy the important results arrived at by the Committee of the Royal Medical and Chirurgical Society. To place, therefore, the two methods with all their details, in juxtaposition, seems to us to be only uselessly and dangerously confusing a subject which ought, above all others, to be most simple and comprehensible to every ordinary understanding.

THE WEEK.

It is generally understood that the prayer of the petition lately presented to the College of Surgeons by the British Medical Association has been rejected, not on account of its being wanting in merit, but because of the expense which would be entailed by carrying it into practice. In order that country Fellows of the College might record their votes by proxy, a supplemental charter would be needed; and such a charter would cost a certain sum of money, and such a sum of money the Council, it is supposed, would not like to pay. We can hardly, however, believe that the richest College in the country, with an income of £12,000 or £13,000 *per annum*, would condescend to the plea of poverty in such a case as this. We must still believe that the College will, sooner or later, listen to the just desires and demands of that large and important body of the Fellows who live outside the metropolitan district.

OUR readers will observe that the answer from the Royal College of Surgeons to the petition of the British Medical Association, addressed to the Secretary of the Association, is dated from the College on November 24th. Nevertheless, the information contained in the answer appeared in the *Lancet* and *Medical Times and Gazette* of the 21st instant. We can, of course, only congratulate our cotemporaries on their "early information." But we must beg to call the attention of the Council of the College to the very serious fact, either that their proceedings must have been surreptitiously obtained by some underling of the College and by him communicated to the journals; or that one of their own body has

not considered it beneath his dignity to divulge facts which he has, tacitly if not overtly, pledged himself to conceal. The matter is of no consequence to ourselves. We shall certainly neither attempt to bribe sub-officials, nor to earwig Councillors, for the purpose of getting "early news." The College, however, owes it to itself to act consistently in this matter. Either let it openly admit the publication of all its proceedings; or, if it refuse to do so, then let the body, for its own credit, consistently carry out its present system. It surely cannot be right or seemly that the reply of the Council of the College of Surgeons should have been thus communicated to the journals referred to, nearly a week before the official reply of the Council is forwarded to the Secretary of the Association.

SOME of the friends of Mr. Peter Martin, in the South-Eastern Branch, have been suggesting the propriety of recording their respect for his memory in some permanent form. We approve heartily of the proposal that something should be done to perpetuate the remembrance of the late excellent secretary of the above-named Branch; and trust that, whatever be the form of memorial ultimately decided on, the members will respond unanimously to the call which may be made on them.

THE Queen has nominated, as members of the Medical Council, E. A. Parkes, M.D., of Netley, Richard Quain, M.D., of London, and H. W. Rumsey, Esq., of Cheltenham, in the room of Sir C. Hastings, W. Lawrence, Esq., and T. P. Teale, Esq., of Leeds. The Queen has also nominated Dr. Christison and Dr. W. Stokes to the Council for Scotland and Ireland respectively. Dr. Embleton has been re-elected into the Medical Council by the University of Durham; Dr. C. H. Leet by the Apothecaries' Hall of Ireland; and Dr. Storrar by the University of London.

IN the case of Mr. Sergeant, a surgeon of Plaistow, whose name had been removed from the *Register* by the Medical Council, he not having answered their letter of inquiry recording to the provisions of the Act, the letter having miscarried through a change of address, the Court of Queen's Bench has granted a rule *nisi* calling upon the Council to shew cause why his name should not be restored to the *Register*.

MR. LA' MERT objects to having his name removed from the *Medical Register*. He has, therefore, applied to the Court of Queen's Bench for a *mandamus* to the Medical Council to compel them to restore his name. His name had been erased from the *Register* on the ground that he had been guilty of "infamous conduct in a professional respect": 1. In publishing an indecent and unprofessional treatise, entitled *Self-Preservation*, etc.; 2. In having stated

that his son, "a Licentiate of the Royal College of Physicians", had been jointly concerned in the authorship of the work. The Lord Chief Justice, however, refused the rule; and therefore Mr. La' Mert's name will not figure again in the *Medical Register*.

BOTH in America and in France, at the present moment, discussions are going on relative to the propriety of raising the tariff of their fees by medical men. Expenses have increased, and are increasing enormously, is the argument: why then should not the fee—the income—be made to keep pace with the expenditure? We in our wisdom in England, just as our expenses increase, in a like proportion extend the area of our gratuitous medical services!

THE question of spontaneous generation is still kept well alive in the Academy of Sciences. The late observations of MM. Guiche, Joly, and Musset, M. Pasteur informs us, "afford only another example, to be added to so many others, in the list of scientific errors, where we see men who pretend to reproduce and criticise the experiments of an author, and yet are not even able to comprehend his method of investigation, and who, whilst they are thinking to refute, actually confirm his experiments."

The groans of the wounded after the battle of Solferino and of other battles of the last Italian campaign, were heard of with deep sorrow at Geneva as well as elsewhere. So deeply were the Genevese impressed with the miseries attending the wounded, that they resolved to form a society for the purpose of administering relief on future occasions of the kind, on a scale equal to the demand. This society has held a meeting at Geneva to which delegates were invited from all the leading governments of Europe. The invitations were warmly accepted; and England was represented by Inspector-General Rutherford who was officially sent there; Austria sent Dr. Unger; France, MM. de Pieval and Bonnier; Prussia, Drs. Loeffler and Housselle; and so on. A series of resolutions were passed to the effect, that committees should be formed in all countries to provide for the health of the army; and that such committees should be in relation with their respective governments; that in time of peace the committees should organise a system under which they would be ready to act in case of war; that during war, the belligerent nations should furnish contingents of volunteer assistants; that the expenses of these assistants should be paid solely by their respective committees; and that they should wear a red cross on a white coat as the badge of their service, etc.

The meeting of the German Society of Naturalists and Physicians, which has been held at Stettin this year, is to come off next year at Giessen, at

the instance of Virchow. Some tragic occurrences threw a shade over the otherwise most successful meeting. At one of the dinners, a surgeon became excited, and during the confusion rushed out of the room, returned to his lodgings, tore up some papers, and then drowned himself. Another member, in landing from a steamboat, after a pleasure excursion, fell off the plank and was drowned. Again, news came that Bärensprung of the Berlin Charité, who was expected at Stettin, had become lunatic while travelling, and had been consigned to an asylum. Whilst this meeting was going on at Stettin, Hungarian doctors and physicians were holding a similar assemblage at Pesth, and toasted each other by telegraph. At Pesth, however, the hospitality of the inhabitants was "as cold as may be," whilst at Stettin it was universal and glowing.

On the 16th instant, the Faculty of Medicine of Paris commenced operations for the season under the presidency of M. Rayer. The pupils present were few; but the professors were all at their posts. Contrary to expectation, the opening ceremony passed off in a "profound calm". M. Tardieu pronounced the address, taking for his text "Political Medicine," and introducing therein an *éloge* of Professor Adelon. After the address, were declared the names of the prizemen. The Monthyon prize was adjudged to M. Ollivier for his paper on Cerebral Rheumatism; the first Barbier prize of 1200 *francs* to M. Preterre for his palatine and maxillary apparatus; and the second to M. Dolbeau for a paper on Perineal Lithotripsy. It was also announced that Baron de Vienny had bequeathed to the Faculty an annual sum of 1000 *francs* to be given to a student "distinguished and without fortune." This year the sum was divided between two equally meritorious students who occupied the required position as claimants.

Virchow's name again occupies a prominent place in the debates now going on in the Prussian Chamber of Deputies. "He spoke in his usual sarcastic and telling style, denounced the system of warnings and the stupid and ignorant annoyance to which the Prussian press has been subjected for nearly half a year at the hands of the local authorities."

M. Rotureau tells the Academy of Sciences that he has been travelling in Italy, and has discovered a mineral spring at Borrino which possesses the property of curing pellagra. The municipality of that town are ready to take under their charge all patients afflicted with that disease, and provide for and cure them at the rate of two *francs* per day.

Dr. Barbinet read a paper, which was listened to with marked attention by the academicians, on the subject of "An Epidemic Jaundice of Pregnant Women, and its Influence as a Cause of Abortion and Death."

THE LATE HENRY ANCELL, ESQ.

THE subject of this memoir was born at Croydon, on January 23rd, 1802. He was the son of William Ansell, Esq., of the same place, who in early life carried on the business of a cotton-mill at Carshalton established by his father. The last named gentleman—the grandfather of Mr. Henry Ansell—and the grandfather of the present Sir Robert Peel, were at one time fellow-managers in the same mill at Manchester. Mr. Peel was promoted to a partnership; whereon Mr. Ansell, considering himself injured, left his employment, and established himself as Carshalton.

Henry Ansell received his education at a school in Croydon. At the age of 16, he was apprenticed to Dr. Wilson of Yoxford in Suffolk. He remained there four years, obtaining the instruction derivable from a very extensive country practice. After this, he passed a winter in attendance on medical classes in Edinburgh.

It was not until several years subsequently that Mr. Ansell obtained his qualifications and settled in England as a practitioner. In 1823, he left this country for the United States, where he remained two years. He travelled on foot over the greatest part of the Northern and Southern States, practising medicine at the different places at which he stopped. While in America, he was seized with a violent attack of intermittent fever, through which he nearly lost his life. He recovered, however; but always experienced a return of his malady when in malarious localities. He was much pressed to settle in practice at Cincinnati; and returned to England with the intention of arranging his affairs prior to his final departure. His friends, however, persuaded him to remain in his native country (1825); and he entered into partnership with his brother, William Ansell, as a chemist and druggist. During the period of his partnership, he attended lectures at St. George's and St. Thomas's Hospitals, and also spent some months in attendance on the hospital practice in Paris.

Having completed his curriculum of medical studies, he obtained the license of the Apothecaries' Company in 1828, and the diploma of the Royal College of Surgeons in 1831; and soon afterwards commenced practice as a general practitioner at 39, Albion Street, Hyde Park, in which neighbourhood he resided up to the time of his death. In 1836, he was appointed Surgeon to the Western General Dispensary; and about the same time became lecturer on *Materia Medica* and Therapeutics and on Medical Jurisprudence at the School of Medicine adjoining St. George's Hospital. These appointments he held until 1848, when he was compelled to give them up, in consequence of his health having become affected by the pressure of his increasing professional duties.

When St. Mary's Hospital was projected in 1849, Mr. Ansell was among the most zealous and disinterested promoters of the institution, for the prosperity of which he worked laboriously during a long period. When the medical school attached to the hospital was established, he held for some time the post of lecturer on Medical Jurisprudence.

Notwithstanding that Mr. Ansell's time was largely occupied with his duties as a general practitioner, he

found opportunities of making several valuable contributions to medical literature; and these contributions contain in themselves evidence of being the results of considerable preparation by reading and reflection. In the sessions of 1839 and 1840, he delivered at the School of Medicine adjoining St. George's Hospital a course of lectures on the Physiology and Pathology of the Blood, which he afterwards published in the *Lancet*. In 1844, he was the author of a series of Commentaries on the Doctrines of Liebig, in which he elaborately examined and criticised the views of the celebrated German chemist, then attracting much notice in the scientific world. In 1852, he published a volume of 800 pages on *Tuberculosis, the Constitutional Origin of Consumption and Scrofula*. In it, the author treated of the following subjects: The Peculiarities of the Scrofulous Constitution; the Signs and Symptoms of Tuberculosis; the Chemical, Physical, and Microscopical Characters of Tubercle and Tubercular Deposits; the Special Pathological Anatomy of Tuberculosis, with an Account of the Deposit of Tubercle in the various Tissues and Organs; the Causes; the Theories which have prevailed in different Ages of the World on the Essential Nature of the Disease; the Theories of the Present Day; the Reciprocal Influence of Tuberculosis and other Blood-Diseases; the Forms and Varieties of its Local Development; the Diagnosis, Prognosis, Prevention, and Treatment: with Statistical Tables of the Prevalence of the Disease in this and other Countries, and of its Relative Frequency according to Sex, Age, Occupation, Locality, Season, and Climate. We have given at length the list of the subjects contained in the book, as one proof of the laborious industry of its author. Soon after its appearance, the book was spoken of in this JOURNAL (and the medical press in general was unanimous in expressing similar opinions of its merits) as "a luminous encyclopædia of the subject"—as "exhibiting the marks of profound historical research; and as containing, in a well digested form, the opinions of nearly every accessible author who has written on consumption and scrofula, from Hippocrates downwards." These opinions, to which Mr. Ansell made additions from his own observations and researches, he skillfully arranged and fairly examined; and, out of the heterogeneous mass which he had collected, he formed a treatise having for its object the demonstration of the dependence of tubercle and scrofula, in all their manifestations, on a morbid condition of the blood. In 1853 and 1854, he also contributed to this JOURNAL several papers on Facts and Opinions relating to Tuberculosis. Among the latest of his literary labours are several of the articles in the new edition of *Cooper's Surgical Dictionary*. In it, we learn from the preface that the articles on Blood and on Tuberculosis were assigned to him; and in the first volume, which is the only one that has as yet appeared, the following articles were written by him: Anæmia; Blood, Acidity of; Blood, Anhydrous; Blood, Coagulation of during Life; Blood, Crystallisation of; Blood, Pathology of; Blood, Pigment-granules in; Blood, Superalkaline; Chlorosis; Cholæmia; Gluco-hæmia; Hæmitis; Hæmorrhagic Diathesis; Heterochymeusis; Hydræmia; Hyperæmia; Hyperinosis; and Hypinosis. At the time of his death, he was engaged

in a work on Poisons of the Blood. This, we learn, is nearly completed; and it is to be hoped that its appearance will not be interfered with materially by his death.

The professional duties and literary and scientific labours of Mr. Ancell would have been, it might be thought, sufficient to occupy all the time which he could give to hard work. But it was not so. For many years, Mr. Ancell was one of the most zealous workers in the difficult field of medical politics. About 1844, he became honorary secretary to the "National Association of General Practitioners"; and this appointment he continued to hold until the "National Association" merged into the "National Institute." As a member of the committee of the latter society, he still took an active part in medical politics for several years.

Mr. Ancell joined the Provincial Medical and Surgical Association in 1853, and was one of the earliest members of the Metropolitan Counties Branch, which was founded in the commencement of that year. For some time he was one of the most regular attendants at the meetings of the Branch, and participated in its debates; and was naturally, in consequence of the attention he was known to have given to medical politics, made a member of the Committee appointed by the Branch to watch the progress of medical reform in Parliament. The reports of the observations made by him on various occasions show him to have always advocated the direct representation of the whole profession in the Medical Council.

Mr. Ancell had one son, who entered the army during the Crimean war, and became assistant-surgeon to the 11th Hussars. While enjoying every promise of a prosperous future in his profession, he died in 1855 at Kadikoi.

Mr. Ancell's last illness dates from January 1862. At this date he had a severe attack of influenza, followed by a cough which remained up to the following summer. In the autumn, he had severe asthmatic attacks, and was compelled in October to leave London and pass the winter at Brighton. He derived, however, no benefit from the change. The cough and attacks of asthma increased; and in March 1863 he went to Tours. The warmer climate almost cured his cough; but the malarious air and change of diet brought on an attack of fever, which obliged him to return at the end of May to his house in Norfolk Crescent, Hyde Park. He became gradually a little better, although suffering much from pain in the abdomen, feet, and legs. The months of August and September were spent by him in Leicestershire; during this time he had not much cough, and appeared decidedly better. At the end of September, the coldness of the weather determined him to go to Lyme Regis for the purpose of spending the winter there. While there, on October 11th, he was seized with violent pain in his abdomen, and was with great difficulty brought back to Norfolk Crescent. He gradually sank, being never free from pain, and died on the morning of Nov. 19. After death, it was found that a large abscess existed behind the colon. It was full of putrid matter, but had not opened into the intestine; indeed, it was not until after death that the cause was discovered.

Thus died Henry Ancell, not indeed having reached in number of years the ordinary threescore and ten of

man, but yet probably having lived more than that time in his acts. What has been already said of him in the foregoing observations, will have shown his untiring industry—an industry which did not forsake him even in illness, for he may be said to have "died in harness." In his more public relations—as a medical reformer and a member of this Association—in which capacities he has been known to many of our readers, he was distinguished for his unvarying adherence to his principles, and for his singleness of mind. In all his actions, indeed, it is difficult to say whether unselfish honesty, or persevering industry, was the leading feature—so thoroughly were both manifested. Though scarcely another man would have done greater honour to the "higher ranks" of the profession, Mr. Ancell to the last remained the simple general practitioner—the "M.R.C.S. and L.S.A." And not only will the general practitioners of the kingdom, but all who knew Mr. Ancell whether personally or by his deeds, long regard with respect the memory of so worthy a member of the medical profession.

FUNERAL OF PETER MARTIN, ESQ.

THE funeral of the late Mr. Peter Martin took place at Reigate on the 20th inst., when every outward sign of respect that could be paid to his memory on the occasion was observed. Several of the magistrates of the county were present; the members of the different professions and societies with which the deceased had long been connected were largely represented; for the inhabitants of the town, it is scarcely too much to say that every one attended the funeral. It must be unusual in the history of any town for an event to take place which could call forth so wide and deep an expression of feeling. Among the numerous company who attended the funeral, were thirty medical men, many being members of the Association, who came from London, Brighton, Guildford, Rochester, etc. Six of these were relatives of the deceased; viz., his father, Mr. Martin; his brother, Mr. William Martin; Dr. Robert Martin; Dr. Martin Holman; Mr. Henry Holman; Dr. C. Holman. There were also present Mr. Street; Mr. Hollowes; Dr. Gordon (Dorking); Dr. Ward (Epsom); Dr. John Brown (Rochester); Dr. Ray (Dulwich); Dr. Armstrong (Gravesend); Mr. Smith (St. Mary's Cray); Mr. Soper (Stockwell); Mr. C. L. Allwork (Maidstone); Mr. C. Chaldecott (Dorking); Mr. Thompson (Westerham); Mr. J. Probert; Mr. G. Stillwell; Mr. J. Bush (Clapham); Mr. Henry Harris; Mr. A. Napper (Crawley); Mr. John Steele; Mr. Andrew Sisson; Dr. Milsom; Mr. Hodgson (Brighton); etc. Demonstrations are not uncommon, but they arise most frequently from some accidental circumstances of which the one man professedly noticed is but a part. In the present case there was nothing of the kind. Mr. Martin was not in the usual sense of the word a popular man; even more than that, he would not have violated his sense of duty for any amount of mere popularity. But he was very widely esteemed, and that esteem had been won by a steady unobtrusive devotion to duty. To him life was not only a stern reality, but an active unceasing practical lesson, which he studied and carried out with a rare sincerity. For these reasons was he so deeply respected. Thus the manner in which the funeral was observed must be a source of deep gratification not only to the immediate friends of the deceased, but also to every man who feels an interest in the working out of great principles. In a certain sense men are influenced by what they admire. That a well spent life should have given rise to so general an expression of

feeling as that of Friday last goes far to prove that the terrible loss which has fallen upon us may have a practical and beneficial result. It is a privilege, although a painful one, to have been able to sustain such a loss; to appreciate it *properly* would be an indication that many would be anxious to imitate that life which has made so strong a charm on their attention. Is any practical and immediate result to follow so undoubted an expression of widely spread feeling? Mr. Martin was, to use a common expression, cut off in mid career. It is not for any one to say how much he might have done had he lived to the length of years prescribed by the psalmist, but there is just reason to believe he would have done much. When the County Hospital, now in progress at Guildford, was first projected, Mr. Martin pointed out that some name, not including the whole county, should be used. Guildford being near one of the extremities of the county, and that not the most populous one, must prevent that enlarged use of the hospital which would accrue if it had a more central position. The name it retained, but the facts will remain the same. The hospital will not be much used by those who live in this part of the county. Could not a hospital for his own native town which he loved so much, be built as a memorial to Mr. Martin. No imprudent scheme need be entered into, but such a memorial would be, as it were, carrying on the work to which a great part of Mr. Martin's useful life was devoted. (Abridged from *Surrey Standard*.)

Association Intelligence.

ROYAL COLLEGE OF SURGEONS: ELECTION OF MEMBERS OF COUNCIL.

THE following reply has been received in answer to the Memorial lately presented by the President and Members of the British Medical Association, and published at 510 of the JOURNAL for November 7.

Royal College of Surgeons of England, London, W.C.
24th day of Nov. 1863.

SIR,—I have laid before the Council of this College your letter of the 23rd ultimo, addressed to the President of the College; together with its enclosure, a Memorial from the President and Members of the British Medical Association, requesting the Council of this College to take into consideration the propriety of altering its Bye Laws, in regard to the election of Members of Council; or, if necessary, of obtaining the legal power of doing so, so that non-resident Fellows of the College may be enabled to vote by proxy at the annual election of Members of Council.

And I am desired, in reply to your communication, to transmit to you the enclosed copy of the Fifteenth Section of the Charter of the 7th of Victoria; from which it will be perceived that the voting at elections of Members of the Council by the Fellows in person is not regulated by Bye Laws, but is a provision of the Charter by which the Fellowship of this College was instituted.

I am also directed to inform you that, although every consideration has been given to the wishes of so large a number of the profession as the Members of the Provincial Medical Association, it is not thought expedient, by applying for a new or supplementary Charter, to endeavour to effect the object to which their Memorial relates.

I am, sir, your obedient servant,
EDM. BELFOUR, *Secretary*.

T. Watkin Williams, Esq.,
Gen. Sec. to the British Medical Association, etc.

[COPY.]

Section 15, Charter 7th Victoria.

"That the Members of the Council of the College shall hereafter be elected by the Fellows of the said College, including the Members of the Council as such; and such Fellows, whether Members of the Council or not, shall be allowed to vote in person only, and not by proxy: and that any number of Fellows (not being less than fifteen present) at a meeting convened for the purpose of electing a Member or Members of Council, shall be competent to proceed to such election."

EDM. BELFOUR, *Sec.*

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
WEST SOMERSET. [Conversazione.]	Clarke's Castle Hotel, Taunton.	Wednesday, Jan. 20, 1864.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 10TH, 1863.

R. PARTRIDGE, Esq., F.R.S., President, in the Chair.

THE TREATMENT OF FROSTBITE BY FRICTION WITH SNOW, FOLLOWED BY INCISIONS. BY A. ROWAND, M.D., QUEBEC.

THE method adopted by the author was as follows. After reaction had been induced by careful friction with snow, incisions were made into the diseased structure. This treatment was adopted by the author in two cases, the details of which he gave. Incisions were useful, not only in preventing inflammation and mortification caused by too great reaction, but by setting the blood in motion also, when it has been stopped by the action of the cold, and should be employed consequently at an early period.

CANCEROUS INFILTRATION OF THE ENTIRE PENIS: SECONDARY DEPOSITS. BY HOLMES COOTE, ESQ.

A man was admitted into St. Bartholomew's Hospital, under the care of Mr. COOTE, with cancerous infiltration of the entire penis. It was found that he could not inhale chloroform without showing alarming symptoms of collapse. In the course of a month he died. On examination afterwards it was found that the whole penis was occupied by soft cancerous deposit; that there was a cancerous ulcer of the bladder; and cancerous deposits in the lungs and bronchial glands, and several of the bones. The head was not examined. The heart was in a state of extreme fatty degeneration.

MUCOUS CYST ON THE LARYNGEAL ASPECT OF THE EPIGLOTTIS, SEEN BY THE LARYNGOSCOPE, AND SUCCESSFULLY TREATED BY INCISION. BY ARTHUR E. DURHAM, ESQ.

The patient, a very intelligent lad, aged 11, was admitted into Guy's Hospital, under the care of Dr. Wilks, on June 10th, 1863. He had for three years suffered from gradually increasing impairment of voice, and difficulty of breathing and swallowing. On admission, all his symptoms were very severe; he complained of pain, increased by pressure, about the larynx; he did not breathe freely; his voice was reduced to a low whisper; solids seemed to stick in his throat, and he could only swallow liquids with difficulty. During the night of the 14th he was seized, as he had previously been on several occasions, while asleep, with a very severe attack of dyspnoea. Tracheotomy was upon the point of being performed, but was delayed by the desire of Dr. Wilks, and on the following morning, Mr. DURHAM was requested to make a laryngoscopic examination. On doing so, the

epiglottitis could not be distinguished in its normal form, but instead there appeared a large, round, tense tumour, projecting backwards and downwards, and completely covering in and concealing the glottis. On each side and rather behind this, portions of the aryteno-epiglottidean folds could be seen, swollen and apparently edematous. The tumour could be just reached by the finger. Feeling certain that it contained fluid, Mr. Durham, with the concurrence of Dr. Wilks, at once proceeded to make an incision into it by means of a long, curved, sharp-pointed bistoury, partially surrounded with sticking plaster. The incision was followed by a sudden gush of thick glairy mucus, mixed with a little pus and blood, which, on subsequent examination, proved to be precisely similar to the contents of a ranula beginning to suppurate. All the patient's symptoms were at once relieved, and in the evening he was singing in his bed. In the course of a few days he was perfectly well. Examinations were made from time to time, and it was interesting to watch the gradual subsidence of the oedema, and the return of the parts to their normal condition. The patient was last examined nearly four months after the operation; he was in every respect well. There was no appearance of the cyst (for such was evidently the nature of the tumour), but the cicatrix of the incision could be just distinguished on the lower part of the laryngeal aspect of the epiglottis.

LIVERPOOL MEDICAL INSTITUTION.

OCTOBER 29TH, 1863.

A. STOOKES, M.D., Vice-President, in the Chair.

Mr. STEELE said that in the report of a former meeting in the *BRITISH MEDICAL JOURNAL*, his name was mentioned in connection with that of Mr. Martin the druggist, in such a way as to lead to the inference that he had given Mr. Martin a certificate. He wished to repeat what he stated at the meeting alluded to, that he distinctly refused to give a certificate of any kind whatever.

Preservation of Vaccine Matter in Capillary Tubes. Mr. BAILEY shewed an old pamphlet issued by the National Vaccine Institution, containing a list of officers and vaccinators, and directions for vaccinating. Among the modes indicated for preserving the lymph was that by capillary tubes, which is generally supposed to be a recent contrivance.

Mr. STEELE said that the method had been in use for many years; Dr. Husband of Edinburgh was not the inventor, but had made great improvements in the method.

Dislocation of the Hip into the Obturator Foramen. Mr. HAKES said he had just had a case of this accident at the Northern Hospital. The patient had also met with a fracture of the thigh of the other leg. As the house-surgeon was attempting to reduce the dislocation, soon after the patient's admission, the head of the femur slipped into the ischiatic notch; and, as the administration of chloroform gave rise to symptoms that created alarm, nothing further was then done. The same afternoon, chloroform was again given; and Mr. Hakes in manipulating moved the head of the bone, but it slipped once more into the foramen ovale; it was then easily drawn into the acetabulum. At the Infirmary lately, a similar case occurred where the dislocation into the foramen ovale was converted into one on the ischiatic notch. These cases do not seem to be very infrequent.

Disease of the Nails. Mr. HARRISON mentioned a case under his care in which, about two years ago, the nail of the left forefinger desquamated, and since then the same thing has happened to all the finger-nails but one. They are replaced by a kind of abortive nail; there was no ulceration at the roots of the nails, but a little roughness

of the skin about them. The patient has no psoriasis, but a spot of lupus on the face.

PATHOLOGICAL DEPARTMENT.

Cerebriform Cancer. Dr. RAWDON showed a large tumour of this character, removed by Mr. Bickersteth from the nates. It weighed two pounds ten ounces, was of thirteen years' standing, and commenced as a hard nodule under the skin. It consisted entirely of a greyish white matter very like brain-substance. Its removal was accompanied by a good deal of bleeding.

Osteo-Sarcoma. Dr. RAWDON shewed a specimen of this disease involving the tibia and fibula. Eleven months ago there was a hard lump under the skin from which there has been a discharge ever since, sometimes of blood. The disease appeared to have commenced in the medullary structure of the bones.

Recurrent Fibrous Tumour. Dr. RAWDON shewed a specimen which had occupied the sole of the foot, and had been removed by Chopart's operation. The patient, a woman aged 56, first had a small tumour near the ball of the great toe, which was removed, but returned in six months' time. The present tumour was not attached to the bones, but was connected with them by firm fibrous tissue.

Skin-Diseases. Dr. BALMAN shewed under the microscope two specimens of skin-disease, viz., one of pityriasis versicolor, and one of herpes tonsurans. With regard to the former of these diseases, Dr. Balman made some remarks on its parasitic nature, and also as to its being contagious. In this case the patient, a servant, slept with her fellow, and the latter was not attacked. He had treated the disease locally with an application of Mr. Startin's, consisting of bichloride of mercury, creasote, and nitric acid; and had given arsenic internally.

Dr. SEARER, in his own person, had found nothing so effectual as a solution of borax in alcohol and acetic acid. This sweeps away the disease, but unfortunately it soon returns again. The disease is not a source of any great discomfort.

Dr. STOOKES was in the habit of using a solution of hyposulphite of soda in the proportion of half an ounce to ten ounces of water.

Hydrophobia. Dr. TURNBULL related a case of this disease, recently under his care at the Royal Infirmary. A young man, aged 19, was admitted on the morning of October 19th. Dr. Turnbull saw him at 1 p.m., and there was then something very unusual in his appearance; he was sitting forward in bed, breathing with difficulty, and was in a very nervous state; the heart's action was excited, pulse 140. Three days before, he had noticed a difficulty in swallowing fluids. He was now asked to swallow a little water, and he swallowed part, but spat out the greater part, shook very much, and his dyspnoea became worse. He spat up a quantity of frothy mucus. In reply to a question, he said he had never been bitten by a dog. Dr. Turnbull ordered for him an antispasmodic mixture, and desired chloroform to be administered if necessary. Before leaving the hospital he saw him again, and found him easier and more composed. He learns that soon after the man became much excited, swore very much, attempted to bite, and spat up much saliva. Mr. Nash, the house-surgeon, applied ice to the head, and gave chloroform; great congestion of the head came on, and Mr. Nash took some blood from the temporal artery. At 4 o'clock p.m. he became quieter, and he died at 5 p.m. At the post mortem examination nothing remarkable was found. In a report that had appeared in the public prints, it was stated that the man had been bitten seven years ago. He could not suppose that the poison could remain latent for so long a period as that; and Mr. Nash had ascertained that within the last two months the man had been bitten by a dog in the mouth. It has been said that this disease does not show itself until about

forty days after the infliction of the bite, and the period may vary from that term to several months and years. After symptoms have appeared, death usually occurs in from two to five days. No treatment seems of any avail.

In reply to a question from Dr WATERS,

Mr. NASH said the chloroform seemed to interfere with respiration, and to produce very great congestion of the head. It was given for about forty minutes, but the patient was never fully under its influence. There was a slight mark near the lip, where the man was said to have been bitten two months ago.

Dr. NOTTINGHAM said that facts have been adduced to show that rabies may arise spontaneously in dogs; but it is extremely difficult to be sure that a dog has been kept isolated from others. He remembered giving a fox to a friend of his who kept it chained up, but on two occasions its leather collar was found to be bitten through, probably by some visitor of its own species. In one case of hydrophobia he had tried prussic acid very largely. Veterinary surgeons and students do not seem to care much about being bitten; if they are bitten, they generally rub the part well with nitrate of silver.

Dr. WATERS said that he had once the opportunity of watching some cases of rabies, of which some dogs of his own were the subjects. In one, the symptoms occurred in fourteen days after the dog had been bitten. In hydrophobia no treatment seemed of any avail, but he would be inclined to put the patient under the influence of chloroform for forty-eight hours.

Dr. DESMOND said he had seen two cases of hydrophobia. One was that of a young man, who was said to have been trying to separate two dogs that were simply angry, not mad; in another case, a child died after being bitten by a lap-dog. It was an interesting question whether this disease could arise otherwise than from the bite of an animal affected with rabies.

Mr. HAKES said we must remember that there need not be a bite; there is only required an abraded surface and the presence of the poison. He had met with an interesting example of the simulation of this disease brought on through alarm. A late surgeon of Prescott was on two occasions bitten by dogs; on each occasion he was attacked with convulsions and other symptoms of hydrophobia, and in each case he recovered as soon as he was satisfied by his medical adviser that the symptoms arose from his alarm, and that there was no real danger.

Dr. NOTTINGHAM remembered a case of a lady who was suddenly reminded, by witnessing a similar accident, of a bite she had received several years before, and was immediately seized with the disease.

Dr. IMELACH mentioned a similar case.

Tumours of the Thigh and Knee. Dr. NOTTINGHAM related several cases, pointing more particularly to the difficulty of diagnosis between fungoid and other forms of disease in these regions. In cases of diseased knee, where the affection is malignant, it may occur within the joint; but much more frequently it arises from the lower part of the thigh-bone, or the upper part of the tibia to near the joint. When it starts from the lower part of the thigh-bone, it is met with at the back part or sides, but not often at the fore part. After removal, the periosteum, in which the disease probably commenced, and the corresponding part of the surface of the bone, are found to be destroyed. The disease arises without any apparently satisfactory cause; but patients often refer to some slight accident which they regard as the source of the malady. The enlargement in such cases is rather a swelling, with a gradual slope of surface, than a tumour with abrupt elevation. The popliteal artery may beat in a part of the morbid growth, which may receive an impulse from the pulsation of the vessel. Patients thus affected are in most cases, like those affected with popliteal aneurism, young or middle-aged; so that, malignant disease of the lower and back part of the thigh-bone

in its early stages having some features tending to remind one of aneurism, its diagnosis requires great care. Dr. Nottingham mentioned several cases in which he had amputated above the knee, generally with good results, as far as the immediate recovery from the operation was concerned. In cases of malignant disease of the lower extremity, or of the external organs of generation, the immediate cause of death is frequently found in the belly or chest, in the mesentery, liver, spleen, and lungs; but this does not seem to occur so commonly where malignant disease first appears about the head, face, and neck. In connection with prognosis and with the probable duration of life, with or without a surgical operation, the question of relative duration and of the modes of termination of malignant disease in the upper and lower regions of the body may be regarded as worthy of particular attention. Cases of tumour in the upper or anterior, or in the lower and posterior part of the thigh, may respectively simulate femoral or popliteal aneurism. The following two cases were given as illustrations.

A healthy looking man, a shoemaker, aged 45, had a tumour in the right groin and upper part of the thigh, somewhat larger than the human kidney, but resembling it in shape, having the hilus looking towards the umbilicus. At an early period of the history of this tumour (of six years' standing), a truss had been applied to it or near to it; which, as might be supposed, did harm rather than good. The tumour received an impulse from the beat of the vessel behind it, which became much more remarkable when the arterial action was excited or increased by unusual efforts of hard work. The tumour was removed by an incision five inches in length, made in the direction of its long axis, near to, and nearly parallel with Poupart's ligament. After the division of the skin and fascia, the tumour was carefully dissected from its cellular bed, and on section, was found to be mainly composed of fat. The patient made a favourable and complete recovery.

In the other case, more remarkable and more formidable, the patient was a bricklayer, 38 years of age, and a very healthy-looking man. The right thigh had acquired a size nearly double that of the left, by the development of a tumour distending the anterior and inner part of the limb; the disease had already existed about eighteen months. The surface of the thigh was pale, free from ulceration, and smooth, but the mass underneath felt somewhat undulated when examined through the skin. The tumour had a strong pulsation communicated to it by the femoral artery, which was evidently not very near to its surface, but lying at some depth within its mass. The disease had been regarded as aneurism, and ligature of the external iliac had been thought of; amputation of the limb had also been proposed, but to this proposal the patient refused to listen. The first incision for the removal of the tumour commenced nearly over the saphenous opening of the fascia lata, passed down the thigh over and nearly parallel with the femoral artery, to terminate at the inner condyle, and in the lower third of its course a second, but much shorter incision was carried from it to the outer condyle, so as to give to the whole a figure not unlike that of the letter Y inverted thus **Λ**. In this way two triangular flaps were obtained, which, when freely turned aside, exposed the course of the sartorius; this muscle was then cut across in the middle of the thigh, and its two ends reflected in their respective directions. The most firm connection of the tumour was with the lower border of the linea aspera, and with the oblique line leading from this to the inner condyle; so that the further steps of the operation consisted in tying, above and below the tumour, the artery which was about to be divided, and then separating the tumour from its connections, with the isolated vessels within it. As there was no loss of skin, the wound was easily closed; and all went on well for the first three days, but on the fourth day symptoms of peritonitis and

of pyæmia came on, and the patient sank at the week end. Great care was taken immediately after the operation, to preserve the warmth of the limb; and this was never lost, although the femoral artery, below the origin of the profunda, had been entirely removed. The section of the tumour had an aspect very much resembling that of udder, of a pale yellow colour, firm in consistence, homogeneous, and not charged at any point with blood or other fluid deposit.

In the case of a woman aged 47, a very large tumour at the back of the thigh and knees covered the course of the popliteal artery; but when first observed, its duration, already long, its aspect, size, weight (about fifteen pounds), and pendulous state from dragging, put aside any idea of its being an aneurism; and of the coexistence of aneurism there was no reason to think. A case was mentioned in which a fatty tumour, long and pendulous, hung from a comparatively small base at the upper and inner third of the thigh; this was removed with success. Such tumours may be said to contrast well with malignant growths in the femoral region, which have generally a relatively broad base of attachment. Solid tumours are found on the anterior, interior, and posterior aspects of the thigh, but less frequently on the exterior of this part, where (as it were by way of compensation) chronic abscess and sero-sanguinolent fluid in large collections, outside the fascia, occurring after injury, and sometimes remaining long, are frequently met with, and if thickly covered, are not always easily diagnosed.

The altered state of the osseous system occasionally met with in persons suffering from malignant disease; the bony tissue softened and enfeebled on the one hand, or partially strengthened by hypertrophy on the other, were shortly noticed, and three cases of recent date mentioned, in which fracture had occurred to patients in whom the cancerous diathesis seemed to have previously existed in what might be called a latent state, and where the more or less rapid development of malignant disease had followed local injury of the femur in one case, of the tibia in another, and of the humerus in a third. In the case in which the femur was affected, the patient, a married lady, aged 38, met with a slight accident, by which her right thigh was broken when she was almost four months advanced in pregnancy. The fracture was thought to have united before her confinement, but the thigh was broken again, as it was supposed, at the same place, about three weeks after the birth of the child, which occurred at the full time, and without any untoward event immediately connected with the parturition. The thigh at the middle measured thirty-six inches in circumference, was of a pale colour, with hard and brawny feel, the disease reaching from the groin to the knee, but without ulceration on the surface. Many large blue-looking veins could be seen beneath the pale surface of the affected part; and about fourteen months after the commencement of the disease, one of these veins, without any previous apparent alteration, suddenly burst, when in less than five minutes the patient died from the very profuse hæmorrhage that occurred. It is worthy of mention that in this case the friends of the patient got the notion that the unfortunate progress of the case was altogether due to want of right management of the fracture which occurred during the pregnancy, and even talked of an action to be brought against the practitioner who attended at the time. In the other two cases also, questions had arisen as to whether the fractures had been properly treated. The medico-legal questions arising out of cases of this nature may affect individuals who were present at the time when the injury was received, or they may affect the practitioner who has treated the case; so that the great suffering of the patient and the fatal tendency of the malady, although the main, are by no means the only sources of claim on the careful attention of the surgeon.

Correspondence.

IRIDECTOMY.

LETTER FROM WILLIAM BOWMAN, ESQ., F.R.S.

SIR,—“A Surgeon” in your JOURNAL of last week asks me “to explain a difficulty which occurs to him in reference to the operation of iridectomy. The condition of the eye requiring the performance of iridectomy appears very common. Mr. Bowman tells us that he every week sees cases in which he has to lament the ignorance of the profession generally on this subject.”* He understands that “iridectomy is now an operation of daily performance in the hands of some of our leading oculists. It appears, moreover, to be absolutely necessary for saving the eye. If such is the case, the patients in whom the operation is said to be required must be very numerous, and, I suppose, must at all times have been very numerous. If so,” he asks, “how comes it that, before the days of iridectomy, complete glaucoma was comparatively a rare disease? We ought, as it seems to me, to have met with incurable glaucoma at every corner of the street, if iridectomy, as is now asserted, is the only means for arresting the progress of the disease which leads to incurable glaucoma.” I reply with pleasure to this inquiry, as the difficulty may have occurred to others also, equally desirous of arriving at the truth.

To escape from the apparent dilemma, it is not necessary to suppose that glaucomatous disease was less frequent before 1857 than it is now; or that, being as frequent as at present, it then yielded to other treatment than iridectomy. It is only requisite to explain that our better acquaintance with the subject causes us to include at present under the term *glaucoma*, or *glaucomatous*, several forms of disease which formerly were never recognised as such. *All that are attended with augmented tension of the eyeball should now be embraced within that term, and as a class should be treated by iridectomy*; although a large proportion of them may and do run their course, even to blindness, without disorganising the eye to such a degree as to cause it to assume the full appearances to which alone the term “glaucoma” was formerly applied. In the cases of confirmed glaucoma (“complete glaucoma,” and “incurable glaucoma,” to use the “Surgeon’s” phrase), in which these glaring appearances are found (*viz.*, the large varicose ciliary veins, the fixed dilated pupil, the yellow or greenish glaucomatous cataract), I believe a considerable degree of inflammation has usually preceded the last disorganising change; and this inflammation is far from occurring in all cases of glaucomatous disease. Probably, however, the “Surgeon” exaggerates in his own mind the actual number of sufferers. They are certainly far too numerous, but, happily, are hardly to be met with “at every corner of the street”.

I am, etc., W. BOWMAN.

5, Clifford Street, W., November 24th, 1863.

LETTER FROM J. G. HILDIGE, ESQ.

SIR,—As I see that the operation of iridectomy for the cure of glaucoma continues to be a subject of controversy in the principal medical journals, might I crave space in your columns for the following case, which, I think, shows the result of the two forms of treatment (*i.e.*, medical and surgical) principally recommended for the cure of glaucoma, in a more marked manner

* My expression was (*ante*, p. 481), “not a week passes, but I have to deplore the absence of this knowledge on the part of practitioners whose attention does not yet happen to have been called to the point.”

than any other which has hitherto been published, so far as I am aware.

J. H—g, Esq., of Sligo, aged about 45, consulted me in the autumn of 1861. The history of his case is as follows. Some time previously, he had been attacked with chorio-iritis of the left eye, for which the usual medical treatment was employed without effect; and, after a period of about two years, he became perfectly blind of the eye. His right eye remained healthy for some eighteen months afterwards, when it also became affected, and for this he underwent a repetition of the same treatment employed to check the disease in the other. He had had medical advice in both London and Dublin, but had not hitherto had the good fortune to meet with any gentleman who practised iridectomy. At the time I saw him he was, according to his own statement, becoming gradually blind of his right eye also. On examination, I found his eyes in the following state. Left eye of normal size, hard to the touch, and of hyper-presbyopic build; conjunctiva of a yellowish tinge; ciliary vessels prominent and tortuous; anterior chamber reduced to a minimum, so that the cornea and iris were almost in apposition; iris much discoloured, its pupillary margin adherent in its whole extent to the capsule of the lens. The lens and its capsule were but slightly opaque; sufficiently so, however, to prevent ophthalmoscopic examination. Vision was in this eye so completely destroyed that he could not see the flame of a candle held within a few inches of his face. The right eye presented almost the same phenomena as the left, but in a minor degree, as he could still read No. 19 of Jäger's test-type when held close to his face. An interesting point with regard to his vision was the extreme astigmatism for objects placed vertically before him, showing the loss of symmetry about the axis of the eye. I performed iridectomy on this eye, in the presence of Mr. Colles, President of the Royal College of Surgeons of Ireland. His eye, when I last saw him, about eighteen months after the operation, was in the following state. The disease was completely arrested; the eye had recovered its normal tension; the conjunctiva had a healthy and almost natural colour; anterior chamber of good depth. There is a large iridectomy at the internal or nasal side of the iris, which has its apex at the ciliary ligament, and its base at the natural pupil. The lens is slightly opaque. His sight is now so much improved that he can correspond with his friends, myself among the number; can superintend his farming operations; and, by looking through a pin-hole or any small aperture, he can distinguish exceedingly remote and distant objects. I should mention that the improvement of vision commenced almost immediately after the operation.

I am, etc., J. G. HILDIGE, F.R.C.S.I.,
Surgeon to the National Eye and Ear Hospital.

Dublin, November 1863.

MILK FROM THE LONDON COW. At the last meeting of the Association of the Medical Officers of Health, the necessity for increased accommodation for typhus patients was insisted upon: The subject of the unwholesomeness of diseased meat was fully discussed, and the highly objectionable character of the milk yielded by cows in the London cowsheds insisted on. The milk of stall-fed cows is poor, watery, innutritious, and in many cases, was said to be decidedly unwholesome, many instances of disease and ulceration of the alimentary canal of infants being traced to the diseased milk on which they are fed. So strongly has this evil impressed itself on the Vestry of St. James's, Westminster, that they have now determined not to license any cowshed in the parish. This proceeding has met with the most strenuous opposition on the part of the cowkeepers, and will probably be brought before the Court of Queen's Bench.

Medical News.

ROYAL COLLEGE OF SURGEONS. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on Nov. 17th:—

Barker, William Lewington, Hungerford
Bellamy, Edward, Balham
Dickson, John Thompson, Clapham Park
Douglas, Mordey, Sunderland
Fox, Francis, Kilburn
Franklin, Charles, Maida Hill
Geoghegan, Richard Taylor, Birkenhead
Grace, Alfred, Donnend, near Bristol
Haxworth, Walter, Barnsley, Yorkshire
Jameson, William Hugh, M.D., Caistor, Lincolnshire
Lebrun, Pierre Joseph Désiré, M.D., Brussels
Lewis, Alfred, M.D., Haverstock Hill
Lord, Richard, M.D., Crewe, Cheshire
Muir, Henry Skeg, M.D., Gloucester Place, Regent's Park
Murray, Thomas, Trinidad
Mussen, Arthur, M.D., Lisburn, co. Antrim
Ralfé, Charles Henry, Cambridge
Rosselley, John Crampden, Watford, Herts
Sandell, Henry William Adrian, Wood Green
Waugh, Alexander, Corsley, Wiltshire
Wilkin, Henry Cox, Dublin
Zinzan, Robert Vaux, Hindon, Wilts

Admitted on November 18th:—

Atkinson, James, Hyde, near Manchester
Beverley, Michael, M.D., Seething, Norfolk
Burnard, Charles Frederick, Plymouth
Byrne, Patrick, Manchester
Elkington, George, Birmingham
Evershed, Montague Frederic, Billingham, Sussex
Gilbert, Henry, Birmingham
Greene, James Sherwin, St. George's, Shropshire
Grosvenor, George Fox, M.D., Alsager, Cheshire
Haigh, Sam, Leeds
Halliday, Saunders Barton, Dublin
Hamlyn, William T. B., Plymouth
Marriott, Henry Thomas, Colston Bassett, Notis.
Mudd, Frederic Charles, Chichester
Phillips, Alfred, Bridgwater
Ray, Edward Reynolds, Dulwich
Shears, Arthur, Isleworth
Sherwin, John, Upwell, Norfolk
Shaw, Charles Edward Martin, Crewkerne, Somerset
Smith, Solomon Charles, Halifax
Stall, William John, Manchester
Stamford, William Ackrill, Beverley, Yorkshire
Wall, George, Stourbridge, Worcestershire

APPOINTMENTS.

ALTHAUS, Paul Julius, M.D., elected Fourth Physician to the Royal Infirmary for Consumption and Diseases of the Chest, City Road.
BETTS, George H., M.D., appointed Medical Officer to the Holloway and North Islington Dispensary.
BRABAZON, William P., M.D., elected House-Surgeon to the Southern Dispensary, Liverpool, in the room of H. B. Watters, L.R.C.P.E.
BREWER, Thomas, Esq., elected House-Surgeon to the Huddersfield Infirmary, in the room of W. Oxley, Esq.
*COOKWORTHY, Joseph C., M.D., appointed Consulting-Physician to the Plymouth Public Dispensary.
CORRIGAN, Dominic J., M.D., elected President of the King and Queen's College of Physicians in Ireland.
DUNCAN, James F., M.D., elected Vice-President of the King and Queen's College of Physicians in Ireland.
HALL, Marriott, Esq., appointed House-Surgeon to the Sheffield General Infirmary, in the room of H. J. Knight, Esq.
HARMAN, John, Esq., elected Resident Medical Officer to the Brixton, Streatham, and Herne Hill Dispensary, in the room of J. T. Mersey, M.B.
HELISHAM, Hector, M.D., elected Medical Officer to the Brixton Streatham, and Herne Hill Dispensary.
KETTLE, Henry, Esq., appointed Resident Medical Officer to the Birmingham and Midland Hospital for Sick Children, in the room of A. W. R. Roberts, Esq.
MASON, Samuel, Esq., appointed House-Surgeon to the Teignmouth Infirmary, in the room of F. D. Harris, Esq.
MORTON, Thomas, M.B., appointed Medical Officer to the Kilbur Dispensary, in the room of W. H. Cook, M.D.
ROBERTSON, D. Argyll, M.D., appointed Surgeon to the Southern Eye Dispensary, Edinburgh.
SCATTERGOOD, Thomas, Esq., elected Surgeon to the Leeds Hospital for Women and Children, in the room of *G. Morley, Esq.
SMITH, Aquilla, M.D., elected Vice-President of the King and Queen's College of Physicians in Ireland.
WILDE, Richard H., M.D., elected Surgeon to the St. John's Wood and Portland Town Provident Dispensary.

POOR-LAW MEDICAL SERVICE.

FORREST, John P., M.D., to the Kildorrery Dispensary District of the Mitchellstown Union, co. Cork.
 HOLTUM, Charles, Esq., to the Third or Canterbury District of the Blean Union, Kent.
 SPEER, Joseph, L.R.C.P. Edin., to District No. 1 of the parish of Liverpool.
 SUTTON, William, Esq., to the Smethwick District of the King's Norton Union, Worcestershire.
 TWIGG, William, M.D., to the Maguirebridge Dispensary District of the Lisnaskea Union, co. Fermanagh.
 WATTERS, Henry B., L.R.C.P. Edin., to the parish of Liverpool.

ARMY.

ASHTON, Staff-Assistant-Surgeon G., M.B., to be Assistant-Surgeon 102nd Foot.
 BECHER, Staff-Assistant-Surgeon F., M.D., to be Assistant-Surgeon 104th Foot.
 CARTER, Staff-Assistant-Surgeon N., to be Assist.-Surg. 109th Foot.
 CHURCHILL, Staff-Assistant-Surgeon A. F., M.D., to be Assistant-Surgeon 109th Foot.
 DUNSTAN, Staff-Assistant-Surg. J., to be Assist.-Surg. 107th Foot.
 FANNIN, Staff-Assistant-Surg. J. E., to be Assist.-Surg. 103rd Foot.
 FITZGERALD, Surgeon F. L., 2nd Foot, to be Staff-Surgeon, *vice* W. Stewart, M.D.
 FLOOD, Staff-Assistant-Surgeon S., M.B., to be Assistant-Surgeon 106th Foot.
 FOLLIOTT, Staff-Assistant-Surg. W., to be Assist.-Surg. 106th Foot.
 FRASER, Surgeon-Major J. A., M.D., 18th Foot, to be Deputy Inspector-General of Hospitals, *vice* T. R. Jameson, M.D.
 HALL, Staff-Assistant-Surgeon R., M.D., to be Assistant-Surgeon 103rd Foot.
 HANNAH, Staff-Assistant-Surgeon J. B., M.D., to be Assistant-Surgeon 101st Foot.
 JAMESON, Deputy Inspector-General T. R., M.D., to be Inspector-General of Hospitals, *vice* Williams.
 LANGDON, Staff-Assistant-Surg. J., to be Assist.-Surg. 105th Foot.
 MENZIES, Staff-Assistant-Surgeon R., to be Surgeon Royal Military Train, *vice* O'Connor D'Arcy, M.D.
 MILBURN, Staff-Assist.-Surg. T. D., to be Assist.-Surg. 108th Foot.
 MORGAN, Staff-Assist.-Surg. T. C., to be Assistant-Surg. 105th Foot.
 MULLINS, Staff-Surgeon J., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.
 MURRAY, Staff-Assistant-Surgeon J. R., M.D., to be Assistant-Surgeon 107th Foot.
 NOOTT, Staff-Assistant-Surgeon E. G., to be Surgeon 2nd Foot, *vice* F. L. Fitzgerald.
 O'FARRELL, Staff-Assistant-Surgeon I. McDonogh, to be Assistant-Surgeon 108th Foot.
 PILE, Staff-Assistant-Surgeon W., M.B., to be Assistant-Surgeon 101st Foot.
 SMALL, Staff-Surgeon J., to be Surgeon 13th Foot, *vice* W. G. Trousdell, M.D.
 SMITH, Staff-Assistant-Surgeon T. P., M.B., to be Assistant-Surgeon 104th Foot.
 STEWART, Staff-Surgeon W., M.D., to be Surgeon 18th Foot, *vice* J. A. Fraser, M.D.
 TROUSDELL, Surgeon-Major W. G., M.D., 13th Foot, to be Staff-Surgeon-Major, *vice* J. Small.
 TYRELL, Staff-Assist.-Surg. W. J., to be Assist.-Surg. 102nd Foot.
 WATSON, Staff-Assistant-Surgeon R., to be Assistant-Surgeon Royal Military Train.
 WEBB, Staff-Surgeon V., to be Staff-Surgeon-Major, having completed twenty years' full-pay service.

To be Staff-Assistant-Surgeons:—

BERKELEY, Assistant-Surgeon R. W., from half-pay, late 23rd Foot, *vice* E. G. Noott.
 HOILE, Staff-Assistant-Surgeon D. O., M.D., from half-pay, *vice* W. H. Jenkins, M.D.
 KILGOUR, Assistant-Surgeon P., 79th Foot.
 LAMB, Assistant-Surgeon H., 50th Foot, *vice* W. Ligertwood, M.D.
 LEX, Assistant-Surgeon E. G., M.D., 21st Foot.
 LONGHEED, Assistant-Surgeon J. F., Royal Artillery.
 MACARTNEY, Assistant-Surgeon J., from half-pay, late 76th Foot.
 MUSCHAMP, Assistant-Surgeon W. H., 82nd Foot, *vice* R. Menzies.

ROYAL NAVY.

CLARK, William H., Esq., Assistant-Surgeon, to the *Aurora*.
 EYLES, Gabriel M., Esq., Assistant-Surgeon, to the *Euryalus*.
 HADDOW, Henry, Esq., Assistant-Surgeon, to the *Conqueror*.
 HURLEY, F. B., M.D., Assistant-Surgeon, to the *Warrior*.
 MCCARTHY, Denis, Esq., Assistant-Surgeon, to the *Rifleman*.
 ORD, Christopher K., M.D., Surgeon (additional), to the *Euryalus*, for service with the Marines.
 ROBERTSON, Angus, Esq., Assistant-Surgeon, to the *Euryalus*.
 SAUNDERS, Daniel, Esq., Surgeon, to the *Conqueror*.

BIRTH.

BROWN. On November 20th, at Rochester, the wife of *Frederick J. Brown, M.D., of a daughter.

DEATHS.

LANDDOWN. On November 23rd, at Bristol, Elizabeth B., wife of J. G. Lansdown, Esq., Surgeon.

NORRIS, J. H., M.D., at Trimdon House, Durham, aged 56, on November 23.

RIX. On November 19th, at Clapham, aged 24, Marianne Elizabeth, second daughter of the late Samuel S. Rix, Esq., Surgeon, of Tunbridge Wells.

RUSSELL, Richard C., Esq., Surgeon R.N., at Eckington, Derbyshire, aged 41, on November 22.

*WILSON, George, M.D., at Alnwick, aged 49, on November 12.

THE KENSINGTON LYING-IN HOSPITAL. The closure of this hospital is announced, through deficiency in its funds.

UNIVERSITY COLLEGE HOSPITAL. John Hibbert, Esq., has given a further donation of £100 to this Hospital.

ST. THOMAS'S HOSPITAL. The Metropolitan Board of Works have accepted the agreement of St. Thomas's for the Stangate site.

QUEEN'S COLLEGE, GALWAY. The Chair of Anatomy in the Queen's College, Galway, is vacant. The situation is worth, between salary and fees, close upon £500 a year.

CHAIR OF CHEMISTRY AT BERLIN. Professor Bunsen, of Heidelberg, has been appointed to the Professorship at Berlin, rendered vacant by the death of Mitscherlich. Professor Rose, we are told, declined the appointment.

THE LONDON FEVER HOSPITAL have determined to add sixty temporary beds to its present number to meet the requirements of the present fever season. It was to assist in this that Her Majesty forwarded a donation £50.

TESTIMONIAL TO DR. HENTY. A testimonial (consisting of a silver tea and coffee service) has been presented to Dr. Henty of Newington Butts, by his friends "for his successful services in obtaining for it a railway station, and otherwise improving the parish."

THE CASE OF DR. COURTNEY. The judges after very lengthened arguments have given judgment in the case of Dr. Courtney, who applied for a criminal information against Mr. Hunt for malicious prosecution. The judges considered that Mr. Hunt had only done his duty, and they therefore refused the rule applied for by Dr. Courtney.

ARTIFICIAL RESPIRATION. At a late meeting of the Metropolitan Association of the Medical Officers of Health, a report on Dr. Silvester's method was received; and the general opinion was expressed that, in all cases where artificial respiration is desirable, it is superior to any other plan that has been proposed.

EXAMINATION OF RECRUITS. The Provost-Marshal states that since the present rebellion began 200,000 soldiers, after entering on service, have been discharged on medical certificates of disability. It is probable that at least one half of them were unfit for service when received. (*Amer. Med. Times.*)

LORD LYNDBURST'S ACCOUCHEUR. It is stated that Dr. Joseph Warren, the distinguished leader in the Revolution who fell mortally wounded at the battle of Bunker Hill, was the accoucheur at the birth of Lord Lyndhurst, just deceased in England, and the venerable Josiah Quincy, of Boston, both of whom were born on the same day at Boston. (*Amer. Med. Times.*)

METEOROLOGICAL SOCIETY. At this Society, on November 18th, the President, Dr. R. D. Thomson, F.R.S., read the annual address. Dr. Thomson dwelt forcibly on the connection existing between certain states of the atmosphere and the occurrence of endemic diseases. During the prevalence of cholera the air has been found to contain an unusual amount of sulphurous acid, and, when passed through water, fungi are developed in that fluid. In the wards of cholera hospitals the air passed through water gives rise to vibrations and other lowest forms of animal life. Similar organisms are also developed when the air of the sewers is passed through water. These experiments prove that the germs of these animals exist in the atmosphere of close places, and show the intimate connection between the spread of dis-

ease and neglect of ventilation. The effect of the increased temperature during the summer and autumn months was demonstrated to be the cause of the diarrhoea so generally attributed to errors in diet and to the use of fruit.

ALLEGED UNLAWFUL POSSESSION OF DEAD BODIES. Charles Law, surgeon, of 24, Virginia Row, Bethnal Green, was some days ago admitted to bail on a charge of unlawfully disposing of the dead body of a female child by throwing it into an unfinished building in the King's Head Yard, Kingsland Road, Shoreditch; and also with having in his possession the dead body of another female child, with the intent of unlawfully disposing of it. He was to have appeared for further examination on Saturday (to-day); but on Wednesday the police officer who had the case in hand came to the court (Worship Street) with a medical certificate announcing that Law had died early that morning in a state of "raving madness".

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY.... Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY.... St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY..... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY..... Westminster Ophthalmic, 1.30 P.M.
SATURDAY..... St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Dr. C. H. F. Routh, Lettsomian Lecture "On Midwifery and Diseases of Women."
TUESDAY. Pathological Society, 8 P.M.—Photographical.—Ethnological.—Royal (Anniversary).
WEDNESDAY. Obstetrical Society of London, 8 P.M. Papers by Mr. Marley, Dr. Earle, Dr. Braxton Hicks, Dr. Gervis, Dr. Barnes, and Mr. I. Baker Brown.—Society of Arts.—Geological.—Pharmaceutical, 8 P.M. Professor Bentley, "On a New Kind of Matico"; Mr. H. Deane, "On the Acetic Acids of the Three Pharmacopias"; Mr. Tichborne, "Administration of Bismuth in a Soluble Form"; Mr. D. S. Kemp, "On Goa Powder"; Mr. T. B. Groves, "Note on the Recovery of Essential Oils from their Watery Solution"; Mr. Howard, "Note on the Root-Bark of Calisaya"; Mr. Hanbury, "Note on *Cassia moschata*."
THURSDAY. Harveian Society of London, 8 P.M. Clinical Discussion, "On Diphtheria."—Antiquarian.—Linnæan.—Chemical.
FRIDAY. Western Medical and Surgical Society of London, 8 P.M. Dr. Gibb, "A General Discourse on Affections of the Throat, with the Practical Use of the Laryngoscope."—Archæological Institute.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—NOVEMBER 21, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys.. 999	1970
	{ Girls.. 971	1475
Average of corresponding weeks 1853-62.....		1861 1503
Barometer:		
Highest (Sun.) 30.089; lowest (Sat.) 29.582; mean, 29.967.		
Thermometer:		
Highest in sun—extremes (Fri.) 81 degs.; (Sun.) 57.2 degs.		
In shade—highest (Sat.) 56.2 degs.; lowest (Tu.) 39.4 degs.		
Mean—4.6 degrees; difference from mean of 43 yrs. +6.3 deg.		
Range—during week, 16.8 degrees; mean daily, 9.7 degrees.		
Mean humidity of air (saturation=100), 86.		
Mean direction of wind, S.W.—Rain in inches, 0.13.		

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

THE FELLOWS OF THE CHEMICAL SOCIETY are admitted to the privilege of attending the sittings of the Royal Society.

F. P.—A correspondent asks us for the meaning of the terms "developmental disorder".

A. T.—The criticism alluded to is founded, from first to last, on a series of misrepresentations. Of course, criticism of this kind, when called in question, can only be defended by a still further indulgence in misrepresentation; and, of course, it is so defended by critics of the class alluded to. You never can convict this sort of people, for they have always in their hand another card of the "old sort" to play out. The only way is to expose their fallacies to the public, and leave them to themselves; for nothing in the way of instruction or advice can make their nature other than it is.

SKILLED ADMINISTRATION OF CHLOROFORM.—SIR: I quite concur in the observations made in the JOURNAL of November 14th, on the importance of appointing an experienced person to administer chloroform in hospitals, and of not entrusting this duty to a house-surgeon or advanced student, who may prove incompetent or careless. But I demur, in some degree, to the remark, "that the operation of giving chloroform is too lightly considered by our surgical authorities." At one of the metropolitan hospitals, in which a fatal case of poisoning from chloroform recently occurred, I know that the medical officers have more than once strongly represented to the authorities the importance of appointing a skilled administrator—of course, with a salary; but, on both occasions, the committee declined to make any appointment. The lay authorities must, therefore, bear the responsibility of deaths from chloroform occurring in that hospital.

November 14th, 1863. I am, etc.,

CHIRURGUS.

[Surely the surgeons in such a case could bring the hospital governors to their senses, by refusing to operate unless their proper demand was complied with. Feeling, as they do, the danger attending the administration of chloroform by incompetent persons, we think they are bound to insist on the appointment of a competent and responsible administrator. EDITOR.]

COMMUNICATIONS have been received from:—Dr. FREDERICK J. BROWN; Dr. E. L. ORMEROD; Mr. BRODHURST; Mr. J. VOSE SOLOMON; Dr. D. A. ROBERTSON; Mr. R. W. DUNN; Dr. JAMES RUSSELL; Dr. ARMSTRONG; Mr. W. BOWMAN; THE HONORARY SECRETARIES OF THE WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; Dr. COCKLE; Mr. J. Z. LAURENCE; Mr. T. MARTIN; Dr. DUCKWORTH; Dr. KELLY; Mr. G. F. HODGSON; Mr. S. G. FREEMAN; Dr. GRAILY HEWITT; and Mr. T. M. STONE.

ADVERTISEMENTS.

Bass's East India Pale Ale.—

This Season's Brewings of this Celebrated ALE are now arriving in casks of Eighteen Gallons and upwards. Our stock of Ale in bottles is in good condition. BARCLAY'S PORTER and STOUTS, in bottle and cask, may also be had of

BERRY BROS., & CO., 3, St. James' Street, London, S.W.
 Also, DEVONSHIRE CIDER.

For Varicose Veins and Weak-

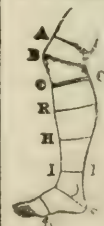
NESS. Very superior SURGICAL ELASTIC STOCKINGS and KNEE-CAPS, on a New Principle, pervious, light in texture, and *inexpensive*, yielding an efficient and unvarying support, under any temperature, without the trouble of Lacing or Bandaging. Likewise, a strong low-priced article for Hospitals and the Working-classes.

ABDOMINAL SUPPORTING BELTS for both Sexes, those for Ladies' use, before and after accouchement, are admirably adapted for giving adequate support with *EXTREME LIGHTNESS*—a point little attended to in the comparatively clumsy contrivances and fabrics hitherto employed.

Instructions for measurement and prices on application, and the articles sent by post from the

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Original Communications.

THE PRESENT POSITION AND PROSPECTS OF EPIDEMIOLOGICAL SCIENCE:

BEING THE OPENING ADDRESS OF THE THIRTEENTH SESSION OF THE EPIDEMIOLOGICAL SOCIETY.

By BENJAMIN W. RICHARDSON, M.A., M.D.

[Delivered Nov. 2nd, 1863.]

MR. PRESIDENT AND GENTLEMEN,—My first duty is to thank you for the distinguished honour you have done me, in inviting me to deliver the introductory address of this the thirteenth session of the Epidemiological Society. My second duty is to congratulate the Society on the continued success with which its great labours are conducted, and on the increasing interest with which those labours are observed and studied by the intelligent members of the general public both here and abroad; by governments not less than by peoples.

I have before me yet a third duty, more difficult and more important; I have to select a subject for my address this evening, that shall in some degree be worthy of the occasion; and that shall, in however poor a light, approach those addresses which on similar occasions, in previous years, have been delivered from this place.

If I have, even for a moment, hesitated in the selection of a subject, surely that hesitation has not arisen from any paucity of materials. A speaker who, without moving from the strict letter of his license, has the opportunity of treating on those diseases from which one-fourth of the death-stricken members of the community meet their end; diseases which, read according to our present knowledge, or perhaps I had better said, our present ignorance, appear as they list, so that we can scarcely say whence they came and whither they go; diseases which, avoiding, as if by some special law, the bowed head and grey locks of old age, seize on the youngest members of the world's family, and tear from our hearts the dearest of our ties—those for whom we would willingly die!—a speaker, I say, who has such subjects for his theme has certainly no lack of opportunity, no want of scope; he may be scientific to the profoundest of depths, pathetic to tears, eloquent to fury, learned to madness, and, in the end, have so much of substance left before him for disquisition, that it shall stand as a pedestal of granite over which his bare fingers have but feebly been drawn. No! it is the very richness of the matters in hand that renders the choice of selection so arduous and refined.

There is, however, a saying of the great Lord Bacon to this purpose: "*The past deserves that men should stand for a time upon it, to view around which is the best way; but when the discovery is well made they should stand no longer, but proceed with cheerfulness.*" This observation supplies me with a text for the present discourse. Instead of tracing out in historical detail the epidemics of the past year, instead of plunging deeply into statistics, which, in my judgment, have been carried in respect to epidemics to the extremity of their present application, I shall prefer simply to make an attempt to stand, for a brief half-hour, on the past of our knowledge; to sketch forth, as far as I am able, the realities that lie at our feet; and then to try to point out the road that seems most direct to the great end for which our Society was founded—by that gentle-hearted, earnest man, who, though removed from us, is not forgotten—the prevention, wholesale, of the pestilences of the earth.

DEFINITION OF EPIDEMIC DISEASES.

Ascending to our vantage ground, and looking at the prospect before us, dividing the known from the unknown, we discover, as a primary fact, that at last we have arrived at a definition almost absolute of each of the diseases of the epidemic class. We know, that is to say, all the forms which occupy our sphere of thought, as clearly as the astronomer knows the number of planets in his solar system. Such knowledge may be considered as exact; and the possession of it, the work of ages, commonplace as it has become, is by no means a contemptible progress.

And yet, with us, precisely as with the astronomer, our chart has one or two gaps in it that require to be filled, and one or two doubtful points that require to be cleared up. For instance, between scarlatina and measles there lies a disease which has yet not been perfectly defined, nor positively named. By some of the older writers, this disease has been called *roseola*. Dr. Ross has depicted it as a *spurious urticaria*. I have myself designated it as *idiopathic rosalia*. Regarding this variety of disease, we have yet to wait to be confirmed in many points; we require to know whether it be a specific disease, or but a modification of those other diseases to which it seems to be allied; whether it be a contagious disorder, or whether it spring from some passing cause, an error in diet, or an exposure to peculiar atmospheric variations. We have also yet to determine the actual differences that exist between the various forms of "typhous" fevers, and on such decision we have to base a new nomenclature. For if it be true, and I for one believe it to be true, that typhus and typhoid fevers are as distinct as Drs. Perry, Stewart, Jenner, and Murchison, would make them, then the idea of a supposed alliance between the two disorders ought properly to be entirely discarded; while certainly any such classification as that which puts the two forms of disease under the one head of "typhous" should be set aside; for the diseases are either one or two; and if two, they are as removed from each other as they are each from small-pox or Asiatic cholera.

PROPAGATION OF EPIDEMICS.

From the position I have chosen to take, we see next a very clear course opened, and still further opening, in respect to the mode by which diseases of the epidemic class are propagated. In this direction we have learned, as a firm and sure basis of further observation, the fact, that the true epidemic disorders are essentially specific, as a general rule, in particular classes of animals. We are cognisant of the law, that scarlatina is peculiar to man, or at most to man and the pig; that the small-pox of man is a disease itself specifically one; that the small-pox of sheep is peculiar to the sheep, and admits of transmission by no means whatever to any other known domestic animal, nor to man; that the pleuropneumonia of cattle, while easily propagated from one of the bovine tribe to another, is capable of no further transmission; and that measles, hooping-cough, and true Asiatic cholera, are peculiar to the human race. This knowledge of distinction of disease, according to animal, is not merely an interesting part of our researches; but an important practical lesson. It will assist, in a future day, to an immense extent, in clearing up questions of causation; in other words, it will enable the etiologist to explain the nature of certain poisons, by a process of reasoning based on the peculiar organisation of the animals in which the poisons are capable of producing special diseases.

SEASONS AND EPIDEMICS.

Once more, the past reveals to us many approved facts in relation to the influence of season on certain formidable diseases. On this point, the statistician and the meteorologist have come most serviceably to our aid;

and their results in their combined form are as safe as any others that are based on arithmetical calculations. Thus, we know that in this country small-pox, hooping-cough, croup, and bronchitis, are most common in the months of January, February, and March, and least common in July, August, and September; that diarrhoea, dysentery, and jaundice, are most common in July, August, and September, and least common in April, May, and June; and that influenza, ague, remittent fever, typhus, scarlet fever, measles, erysipelas, and carbuncle, are most prevalent in the months of October, November, and December. Further, we have learnt, as a particular fact, that at least one disease, small-pox, which admits of transmission by direct inoculation, is checked in its course, even in this method of propagation, by the wet seasons of tropical climates.

These facts, although at the moment they are not explained, afford a solid ground-work of labour for the future inquirer. They represent so much work done; and so much added to the capital of our knowledge.

GEOGRAPHICAL DISTRIBUTION OF EPIDEMICS.

Again, we have determined, through the labours of Keith Johnston and M. Boudin, the geographical limits of almost all the great epidemical disorders; so that from any centre of the earth's surface the learned physician can turn to his map and tell the traveller, or the general, or the politician, with precision and readiness, what diseases will be met with in any other centre. We can say of diseases, they have their habitats and stations which we know. We can define cholera as living between its own lines, of 64° north latitude and 21° south. We know that yellow fever, though it has passed, has never spread, beyond the degrees of 48° north and 27° south latitude. We know that typhus stops nearly at the point southward, where yellow fever stops in its northward course; that in Western Europe it prevails between the parallels of 44° and 60° north, and in Northern America between the parallels of 32° and 48°; in districts, in fact, where the thermometer, as Mr. Johnston shows, has a range between 62° and 40°, and nowhere else.

Lastly, we have learned that, according to elevation from the surface of the earth, diseases undergo change; that yellow fever, for example, never ascends a mountain above the height of four thousand yards, even in the tropical world.

In these facts, we have firm bases of learning, the importance of which we cannot too dearly prize. Our knowledge here compares handsomely with that of the physical geographer, navigator, natural historian, and botanist; nor need we shrink from contest with these as to the point, who is most exact and sure in his information. Nay more, our acquirements in respect to these geographical matters, admit of immediate and useful application in the actual treatment of epidemics. For, if typhus will not exist above or below certain mean temperatures, there is a direct index, that in treating it the patient should not be allowed to lie in an atmosphere included in those temperatures; and there is, further, a direct index towards a series of inquiries regarding other epidemics, whether they too will not cease to exist above or below certain thermometrical degrees?

SPECIFIC CAUSES OF EPIDEMICS.

Lastly, I conceive that our ground is now tolerably safe in respect to the law that each disease, which we may venture to call specific and spreading, has for its cause one special poison. This supposed law of propagation, lately announced in Edinburgh by the most distinguished of its professors, Dr. Christison, has been almost universally recognised in this Society from its foundation. It is a theory which has been most energetically supported by Mr. Grove; it was always resolutely, and some

even thought doggedly, sustained by Dr. Snow; it was one of the articles of faith of our ever to be lamented Dr. McWilliam; and, in truth, through all our debates, we have never once had it seriously called in question.* For my own part, I look upon it as the best, the soundest, and the most useful of facts in our science; as sufficient, when properly understood, to explain all the observed phenomena of epidemics; and, as a theory, as demonstrative and as satisfactory as that of the tides in physics, or of the atomic theory in chemistry. If I were asked for proof or demonstration, what better can be found in any science or philosophy? The one simple experiment of inoculation for small-pox, and of the direct transmission of the disorder from one person to another by this method, is instant proof that the germ-theory is acceptable. The engrafting of a disease by inoculation, is not, in the abstract, different, in any respect, from the engrafting of a rose on a stem, or the planting of a seedling in the earth. When, therefore, we take the phenomena which follow the process of inoculation, and compare them with those which succeed from exposure of the body to small-pox virus without inoculation; and when, pushing the point further, we compare the results of exposure of healthy persons to those who are suffering from allied disorders, we have no alternative but to accept that one universal principle of causation prevails in epidemics; that each disease has its specific, organic, physical cause, which may not, it is true, have been discovered by the eye, but which exists nevertheless, and obeys the same influences of motion and rest, as other bodies more substantial and more readily demonstrable.

INFLUENCE OF SANITARY REFORMS.

While, however, we stand firmly on this law, we require, for the benefit of the outer world, to give to it an interpretation which shall secure for it respect and acceptance. It is a law which, partially understood and so dogmatically asserted, is apt to lead the mind away from paying attention to important details, and to produce mischiefs by default, that are not easily or momentarily remedied. It is the general disposition of most minds to be indolent in new and unpractised offices; it is the favourite bent, I believe, of nearly every mind to defend itself behind the inevitable, "What can't be cured must be endured"; "What is to be must be"; "When Jove commands we must obey"; "Let us eat and drink, for to-morrow we die." These are the daily solaces and sops with which the wisest of us fill our cups of life and pass them round. What, then, if there be poisons in this universe which are borne by every wind that will waft them; that may enter the system by the air we breathe unconsciously; passing, like right royal Mab,

"Athwart men's noses as they lie asleep?"

What if these poisons be invisible and inscrutable? Of what use, then, all care, all thought, all precaution, all so-called preventive measures?

In regard to this position of the question, we, who hold the view that these poisons are veritable and substantial agencies, are bound to meet the dangerous objections that are thus suggested, with firmness on the one hand, and argument on the other. The worst feature

* The comments that have been made in the various journals on Dr. Christison's address, are somewhat startling to epidemiologists, and even painful, as indicating the haste with which criticism immediately falls, without any due thought, on men of eminence and position. Dr. Christison, for instance, has been held up as the originator of the idea that mere bad smells are insufficient as causes of specific epidemic disorders. Of course, Dr. Christison was himself far too well read to assume any such position. Twelve years ago, for advancing the same views in this JOURNAL, Dr. Noble of Manchester was criticised almost as severely. In the year 1855, Dr. Snow was attacked for the same reason, in consequence of his evidence before the Select Committee on the Public Health Nuisances Removal Bill. But in none of these attacks has there been any correct appreciation of the real question at issue.

of the disputation on the side of the poison-theory is, to ride the fact too madly and to protest too much; and the worst feature of the disputation on the other side, lies in the same direction. To affirm that a bad smell is sufficient to account for any epidemic, is as unwise as it is to assert, that in no case is impurity of the air a necessary attendant on the cause which actually excites a disease of the communicable type.

Neither is it the right thing to say, that the truth lies in the midst of the two extremes; for the truth really lies in the special facts of each disease. On the right hand, we see the salutary influence of preventive measures on the largest scale; we see districts in which, while they were still uncleansed, every epidemic disease was rampant, and in which the mortality was twenty-three, twenty-four, and even twenty-six per thousand, become, under the hand of the sanitary reformer, largely freed from these disorders, and the mortality reduced to twenty, or even to seventeen per thousand. Again, we observe certain pests, such as jail-fever, wiped entirely away from their old habitats purely by cleanliness, fresh air, and proper food. These are sterling facts, and are not to be gainsaid. On the left hand, we are met by these truths; that some disorders spread unaccountably in the most healthy districts; that scarlet fever, for instance, as I have elsewhere shown, seems to be modified in its course by no ordinary external conditions, but may be as fatal in the palace as in the hovel; its contagious poison passing from one point of the earth to the other in temperate climates, irrespectively, as it would appear, of all conditions that lie outside. The same may be said of measles, of hooping-cough, of croup, of cholera, of typhoid fever, and perhaps of diphtheria.

We are unable, as candid men, who care nothing for pet views and fancies, and who do care for the steady, however feeble, ray of truth, to ignore either class of the facts propounded; but we must deal with them separately, and discuss each one on its own merits. I believe we are able to effect this object; I believe we stand on safe ground when we undertake and advance an analysis of all the evidence before us in its details; I conceive that no contradictory elements invade the argument; and I would, in a few sentences, endeavour to indicate how analysis unfolds the difficulty.

The admirable experiments of Dr. Barker on cesspool-air prove to us beyond the shadow of a doubt, that long inhalation of an atmosphere charged with the gases evolved from decomposing organic matter, is capable of producing a set series of symptoms which constitute a disease. These symptoms are, increased heat of skin, thirst, irregular and feeble muscular contractions, and diarrhoea. The symptoms continue so long as the cause remains in operation. But it is to be observed that, when the cause is removed, there is no continuance of symptom, no recurrence or remittency; but a tendency towards recovery. No communicable disorder is induced. The poisons act for the time as chloroform might act, but they lay no hold on the tissues; they are negative poisons; and so soon as they are removed, so soon the affected organism returns to its equilibrium.

By the side of these experiments, let us place the wonderful history that has been given to us by Dr. Wm. Budd, of the late small-pox epidemic among sheep in Wiltshire. There we see a district of country in which the air is of the purest; where for centuries the white flocks of the English agriculturist have roamed untouched by disease. There is here no cesspool-air, either to excite disorder or to exaggerate evil. But a little leaven of disease, through some infected animals from abroad, is let into that open spot; and straightway, in those plains, so healthy hitherto, there is a devastating sheep-pestilence. Now for the tests of science. There are sharp eyes watching the flocks; separating the sick from the healthy, and encircling the disorder. The result is, that the pestilence is at once put out.

I will not weary you with further details; but will attempt, while these two pictures are fresh on the mind, to draw the natural inferences to which they lead. In the first place, they indicate that an air charged with the gases emanating from organic matter during its ordinary decomposition, is capable of creating disorder, but not specific communicable disease. From this we may infer that cases of specific disease exposed to these gases become complicated by the nature of the air which the sufferer breathes, but not more; the precise symptoms which mark the communicable and specific disorder are still the same, in so far as they are developed, and, in themselves, run the same course.

Next, we are driven to allow that, under the best hygienic conditions, the specific poisons may produce a fatal catastrophe by virtue of their own action; by virtue of that action which differentiates them from the negative poisons; by virtue of that action which begins with this fact, that the poisons lay hold of the organism, enter into its composition, interfere with its natural actions, and destroy its integrity.

If, finally, we are asked, Why, then, do sanitary measures effect so much real good? One answer is clear, decisive, and simple. When the sanitarian improves the house, he improves the inmates. If into a dirty, dark, ill-ventilated, badly drained dwelling, an epidemic poison shall enter, and shall multiply there; there shall it remain long, because the conditions for its removal and its destruction are most unfavourable. In the better class of house, the house well aired, well lighted, well traversed with water, the poison has many exits, and finds them; in the opposite condition, it is neither burned nor buried; but rests for years ready to be distributed, and to afflict with its power any one who, susceptible to its action, is offered up to it as a victim.

In the agricultural districts of this fair country, in those hovels of our labourers, which call back to our minds the song of the sweetest of Roman poets, and tell us how, from the days of Cæsar until now, small has been the change, how contemptible, after all, our civilisation; in every cottage of many villages, we see the very granaries of these poisons. In the thatch "*pauperis tuguri culmen*"—in the dust beneath the rickety floors—in the cracks of the miserable couch—in the mud wall—there they rest, and from century to century they remain, lost only in conveying to new generations fresh evils, and in becoming renewed for further transmission to generations yet to come.

Let us, then, as scientific epidemiologists, join hands with the sanitarian; let us not, for a moment, think little of his labours, nor breathe a breath that shall reduce them in the public estimation. Let us ask him simply not to embarrass his good work with untenable theories as to origins of disease; and, while we leave him to discover means that shall prevent the causes of twenty-four deaths *per cent.* from being harboured in human habitations, let it be our aim to second his efforts by subjecting these causes to more rigorous investigation; and by learning how, when in spite of every precaution they have been brought into action, they may be successfully met and neutralised.

NON-RECURRENCE OF DISEASES: PROPHYLAXIS.

Still standing on the past, we have two further facts before us, each of great importance and each very wonderful. The first of these is, that epidemic diseases belonging to certain classes do not, as a general rule, recur in the same person; and the second, that in one disease—I refer, of course, to small-pox—we have in our hands an almost certain prophylactic. These facts require no comment and no exposition; but they had to be included in our summary, or the researches of past labourers had not been fairly presented. When they are spoken, all the *reliable known* is discovered.

PROSPECTS: WORK TO BE DONE.

From the land over which we have glanced, we must look next to the prospects that lie in view. Which way shall we go with cheerfulness, hoping for success? That is the question before us.

As it appears to me, there is promise of successful travel in three directions:

1. Towards a better knowledge of the sources of the poisons of the epidemic class.
2. Towards a more correct appreciation of the changes produced in the body by these poisons, and of the way in which they cause the destruction of life.
3. Towards a more correct view, in respect to the modes that should be adopted to destroy the effects of the poisons in the living organism; in other words, the means of cure.

EPIDEMIC POISONS.

As regards the source of the poisons of the various communicable disorders, our attention ought to be very sharply and earnestly directed to the vegetable world. I think I may say that, for ages past, certain speculations have been afloat as to a connection between the existence of what are called fungoid vegetable growths and communicable spreading diseases; but within the last few years observation of a direct and practical kind has tended to transform the speculative into the real. In the year 1847, I myself made an observation, which was recorded in an inaugural thesis written for the Faculty of Physicians and Surgeons of Glasgow in 1850, and afterwards was reported at this Society in 1853, which had an important bearing on the question under consideration. The observation was to this effect. Three men who were working in a barn, thrashing corn, on arriving towards the close of their task were exposed to dust coming from the floor on which the sheaves of corn (wheat) had laid. At the moment of exposure to the dust, they were conscious of some unpleasant sensation, and soon afterwards were seized with rigors and signs of febrile disturbance, ending, in each case, in erysipelas of the face and head.

In commenting on these cases, I suggested that it was possible the disease arose from the inhalation of some vegetable fungus pertaining to the straw; a view which the evidence supplied fairly supported.

From then until within the last two years, nothing occurred in medical science to sustain this view. At last, in 1862, an American physician, Dr. Salisbury, made a series of researches in regard to measles, which, in a singular, and, so far as they go, conclusive way, indicate that a disease resembling this epidemic may have a direct origin from the vegetable world.

Dr. Salisbury's first observations were to the effect, that a disease known in armies as camp-measles, had its origin amongst some soldiers under his care in Ohio, from their sleeping on straw which was covered with the spores of a fungus, commonly known as "must". Believing that the disorder observed arose from the inhalation of these fungi, Dr. Salisbury, on February 11th, 1862, had the courage to inoculate himself in the arm with some sporules derived from wheat-straw similarly musty. The result was, that on the 15th the experimentalist was suffering from a disease in every respect analogous to measles. On the 19th, he inoculated his own wife, with the same resultant phenomena; and ultimately, he subjected his children to a similar process, also with like results. Further, he found that, after one inoculation and production of the disease, a second inoculation took no effect.

In the present year, Dr. H. Kennedy, of Dublin, has recorded a case in which an affection closely resembling measles was induced in a youth from exposure to some musty flaxseed-meal, which, in a joke, had been thrown in the face of the patient, and which he had inhaled.

It is unnecessary for me to dwell on the immense im-

portance of these observed facts. They open up, obviously, a new line of experimental inquiry, which it is the duty of our Society at once to follow out. If such diseases as erysipelas and measles can be induced by the inhalation of vegetable fungi, the inference is fair that other of the epidemic disorders have their first origin in a similar cause. In the virus of small-pox, there are bodies which resemble closely the sporules of the yeast-plant. What would be the effect of inoculation with the sporules of the plant named? The fungi which form on moist bread and flour, what would they do if introduced into the blood? Various analogies seem to tell me that these bodies must exert in the organism an effect, similar at least to the virus of common contagious disorders.

PATHOLOGY OF THE EPIDEMIC DISEASES.

The second line of progress in which our steps should be directed, has relation to the changes produced in the living body by the communicable poisons, and especially as to the mode in which these poisons destroy life. We are accustomed to speak of these poisons as ferments, and as exciting some kind of action analogous to fermentation out of the body. Regarding this hypothesis, which rests by the way on no experimental proof, I must state that it is a question which this Society ought to subject to very rigid inquiry. Looking at the question from a physiological point of view, I am inclined to assume, although I would not be dogmatical, that the process is one in which the natural zymosis of the blood is perverted, rather than that there is a new and active zymosis established. As the phenomena are presented to me, we ought to consider that in health the respiratory constituents of the blood are at all times, under the influence of the albuminous compounds, undergoing a natural fermentation; and that, when foreign matter is introduced, this normal change is checked and a new series of products, marking a modified form of oxidation, are evolved. Whichever view be correct, the evidence all tends to the inference that the actual dangers of those epidemic diseases which present inflammatory symptoms—so-called—are due to a peculiar modification of the fibrinous constituent of the blood, under which it proceeds to undergo separation, and to be deposited in the right chambers of the heart. In diphtheria, scarlet fever, measles, whooping-cough, croup, and influenza, I have many times proved, both by the symptoms that preceded death, and by the pathological findings, that the immediate cause of dissolution was unmistakably the separation of fibrine in the heart, and consequent suppression of the current of blood through the body. The same observations have been made by Dr. Jones in relation to the remittent fevers of tropical climates.

Opposed to these conditions there is, I think, another class of epidemic diseases in which the fibrinous constituent of the blood undergoes extreme solution, owing to excessive alkalinity or to the production of one of those peculiar ammoniacal substances known as compound ammonias, which at the present time are receiving so much interesting and important observation in the chemical world. In these cases, if my suspicions are well grounded, the cause of death is traceable ultimately to dissolution of the fibrinous or albuminous envelope of the red corpuscles, and to discharge of the free hæmatine into the blood-current. The forms of disease which appear to be classifiable under this head are: the true petechial typhus fever, yellow fever, and plague.

An investigation of the disorders named, with a view to the solution of the problems suggested, would be another fair and most useful prospective labour for the learned members of our body.

TREATMENT OF EPIDEMICS.

In the third place, light appears to be breaking in upon us in respect to the treatment that should be

adopted in cases where the epidemic disorders have seized on suffering humanity. We ought neither to hesitate, nor pause, nor tire, until we have determined some means, definite in their design, by which some reduction of their 25 per cent. of mortality shall be secured. At the present moment our practice, although successful in regard to symptoms of a superficial kind, is vague, contradictory, and unsatisfactory. It will remain thus until an effort is made to reform it. Worse it could not well be; better it must be. To inaugurate the reformation, to ascertain the way we should go, we must first determine the essential differences of various epidemic disorders. If it be true, as has been suggested, that one class of these affections is accompanied with excessive formation and with separation of fibrine, it will follow that those remedies should be as nearly as possible specific which check this formation, tend to hold fibrine in solution, and prevent decomposition. Such remedies are certainly in our hands, and in a rude way their value has been determined; what is wanted is a more rigorous analysis of their worth. At this moment, the remedies to which reference is made are two in number: ammonia and the sulphites. Ammonia, first introduced into practice in the treatment of scarlet fever by Dr. Peart, has since been used by Dr. Witt, by myself, and by other physicians, with a success in this particular disease which may be considered almost as specific; it has also been used with equal success by Mr. Swann of Barrowden, in the treatment of the allied disease diphtheria.

The sulphites of soda and potassa, introduced first to notice by my honoured friend Dr. Polli of Milan, appear to act equally well, and even to prevent death after the injection into the veins of animals of pus, decomposing albumen, and decomposing blood. The action of both these remedies is the same; both produce their effects, not by removing oxygen nor by combination, but simply by arresting the modified fermentative process that has been excited. But in using these remedies we must be cautious that we overstep no bounds; and that with each disease we determine whether it be advisable to increase or to reduce the fermentative change. In that class of disease where there is great solubility of blood, it appears to be a more reasonable practice to facilitate the organic changes, by remedies which hasten metamorphosis, and neutralise the alkaline products. Hence the acknowledged although partial value of mineral acids in typhus; hence, probably, the reason why typhus disappears, as a disorder, beyond a certain degree of temperature. And, again, as every fermentative change, as every organic change, turns in fact for its development on the motion imparted to the ultimate molecules through heat, we have a great lesson yet to learn in miniature, from those grand series of geographical facts to which I have briefly referred on a previous page. What is true of the world at large as a great chamber, is surely true in smaller chambers; and it is not unlikely that experience will yet show that, by artificial variations of cold and of heat, all the epidemic diseases may be effectually commanded.

In conclusion, in the matter of treatment, we have had recently opened for our inquiry certain important lights relative to the removal and the destruction of those organic poisons which float from the bodies of the sick. I do not refer to ventilation, nor to cleanliness; those are implied and are locked up in the conscience of every well informed medical man; but I refer to the employment of various vapours which, diffused through the air of the sick room, destroy the organic particles, and render the air pure and inoffensive. Through an observation of Mr. Hoffman of Margate, which I have endeavoured to elaborate, we have now placed in our hands, a means so simple, so practical, so effective, that I have ventured to break through the dignity of an introductory address to bring it here in the way in which it is

applied. The substance employed is simple iodine. It is used both in a permanent, and in a special manner. For permanent use, the iodine is merely placed in a common chip-box, or in a glass, covered with a layer of muslin. For special purposes, the iodine, placed in a saucer, is volatilised by the heat of a candle into the air of the sick room, until the odour of iodine is just perceptible at all points. By this means, in one of the severest cases of confluent smallpox I ever saw, and which I attended last summer in consultation with Mr. Hubbard of Kensington Gardens, we were enabled to deodorise the air of the patient's apartment with a facility and a comfort I have never before experienced. The process contributed, I think I may say, largely to the recovery of that case.

Iodine, thus used, also affords a good practical index as to the purity of the air in an apartment. If, on volatilisation, the odour of the metalloid be long in being developed, the evidence is clear that the air is proportionately charged with organic matters.

But our prospect must come to a close; not because there is an end of it, but because the time presses, and in that which has been presented, there is ample work offered for all our thoughts and all our hands. The work, moreover, is hard, and for a time inglorious; but in its aim and end, it is one of the greatest of all pursuits in medical science and art. It is the kind and form of work moreover, which can alone give to our profession a vitality amongst vitality, and a voice amongst the voices of mankind. So long as we only loiter and hide ourselves in the sick chamber, we are entombed with the living dead, and we appeal merely to the judgments of those who are too feeble to test whether our art, as represented by us, is pretence or reality. It is not our duty, it is not the duty of any one of us, to leave the sick chamber; for he who knows not intimately what is going on within, knows little more of what is influencing from without; but it is the duty of all of us in this advancing day to know the outer as well as the inner chamber; and to make ourselves appreciated as men who understand disease in its social and moral, not less than in its scientific bearings.

Through no section of the body medical does the opportunity offer itself for proving the breadth of our learning, so perfectly as through this Society; and in the sketch I have ventured to draw, as preliminary to the labours of another session, I have tried to indicate the readiest and most sure way by which our efforts may be crowned with success; by which we may appear to the world as statesmen not less than citizens, and as kings as well as priests.

ILLUSTRATIONS OF THE DIFFERENT FORMS OF INSANITY.

By W. H. O. SANKEY, M.D. Lond., Medical Superintendent of the Female Department of the Hanwell Asylum.

[Continued from page 522.]

THE feelings or moral faculties are the first to be affected in melancholia, and also, it is true, in most other forms of mental disease. In fact, the prominent phenomena of insanity, in the majority of the cases, are connected with this division of the mental faculties. In melancholia, the disease involves also, as it advances, the intellect on the one hand, or the motility on the other; or, in some instances, both the intellect and the motility together.

Motility is affected in two modes in melancholia. In some cases, there is excess of motion—restlessness, fidgetiness, or constant movement; and the disease in these cases has been called *melancholia agitata*. In other cases, there are torpor, inaction, hebetude; and in these the disease has been named

melancholia with stupor, and also, but less correctly, acute dementia.

The last case narrated was one in which there was an amount of restless motion, which approximated it to the kind of disease to which the name of melancholia agitata is given. The term is merely descriptive of a variety: it is not pretended that there exists any essential difference in such cases. Such shades of variation are met with in the non-morbid expression of grief. For example, around the deathbed of a patient, or at any other scene of a painful character, we may see the genuine and normal feeling of grief very differently manifested in different individuals, and even among different members of a single family. In some, there is a perfectly quiet state of the muscular system; a torpor even of the muscles of expression; a fixed gaze; a semi-stupified or blank stare, in which grief does not even seem portrayed. The individual also sits or stands motionless. In others, especially in females, there is seen a restless motion of the entire system; the face is expressive of the mental pain. If the person sit, she is constantly twisting or altering her position, or she rocks backwards and forwards; or, if up, she will walk to and fro, frequently changing the position of the hands—now on her neck, now clasping them, now twisting a string, with a greater or less amount of control, according to the amount of education, etc. Among the Irish poor, the muscular system is much brought into action: there are wringing of the hands, sawing of the air, etc. In one class of persons, grief is attended with silence; in another, with loud lamentation. And it is so in disease. My notes furnish me with many more or less perfect cases of this form of melancholy.

CASE VII. A. H. A second or third attack, and a re-admission. The patient was first admitted in 1856. She was then 30 years of age. The attack commenced during a first pregnancy; but it was reported at the time that she perfectly recovered prior to her delivery, but was taken again (making the second attack) immediately after her child was born. The labour was easy; the child was healthy. The patient, a few days after its birth, became much excited, and was taken to the workhouse. There she speedily improved; and, on her discharge from the workhouse, she went to her own relatives in the country, became worse, and was brought back and admitted into the asylum within three weeks after parturition. On her admission, it was stated that she raved, screamed, and was excited and depressed alternately; while at home, she tried more than once to jump out of the window, and made an attempt to strangle her infant. She gradually recovered, and was discharged cured from the asylum six months after the date of admission. She was readmitted after a lapse of five years.

She was then 35 years of age, the wife of a coach-painter. There was hereditary tendency to insanity in the family. She had a sister, and an uncle on the maternal side, insane. Her mother was a person of feeble intellect. The patient had been subjected to severe privations of late. The husband had been out of work for some months, and they had had to part with the furniture and clothes for food.

Since the former attack, the husband related that he had found his wife to be much altered in disposition. She was formerly cheerful and particularly lively, but had since been melancholy and suspicious. She was confined with twins five months ago, and was suckling both when she was taken ill. One of the children was born blind; they were both very feeble and sickly. (Both children died soon after the patient's admission.) She had been gradually becoming more and more dull and neglectful of herself and home since her confinement. She had been several times violent, and had attacked her husband.

150th Day. She was emaciated and exhausted; was very perverse and restless, struggling to get away, re-

sisting any attempt to lead her, and always endeavouring to go in the opposite direction. She was constantly exclaiming, "I am on fire; it's sinking; we shall be burnt." She refused her food; would not go near the dinner-table. She had an anxious and wild expression.

On the following day, she had passed a restless night; she had an anxious frightened expression. She said, "It is the gas; I can taste it and smell it." She addressed me by name; evidently, therefore, remembering me. The pupils were both small; the conjunctivæ injected; the hands were tremulous. She was constantly on the move, rocking to and fro on her feet. She looked back, or from side to side, clasping her lips with her hands, etc. The tongue was furred. Her bowels had not been open. She took food, but with reluctance. Her pulse was rapid. The skin was moist.

152nd Day. Her mental agitation remained the same. She was constantly saying that she was on fire. She said I was writing down what a wicked wretch she was; accused herself constantly of different things, frequently iterating, "I have done it; I have done it; I have burnt all." The expression of the countenance was wild and anxious. She was restless, constantly moving. She went hither and thither in an unsettled kind of manner, and looked about nervously. The eyes were glossy; the conjunctivæ were not injected; the cheeks were flushed; the skin was moist, greasy. A few spots of acne were seen on the face. The tongue was moist. She took her food. She had had no stool since admission. The pulse was rapid; the breathing quiet. There were no morbid chest-signs. She was ordered to have half an ounce of castor oil directly.

153rd Day. The oil acted well. She required persuasion to make her take her food.

155th Day. She slept all night, and was less wild in expression. She had taken food well to-day, and talked less about fire.

The notes from the 156th to the 162nd day show a gradual diminution in the restlessness. On the latter date, she was quiet; no longer restless, nor so distressed; but was still depressed. She was little disposed to speak. She took food well. The castor oil was repeated on the 159th day.

179th Day (or 29th after admission). She was more calm and comfortable, but had not employed herself yet. The expression was stern; the eyes were glassy and ferret. She sat tranquilly, and slept well. She could not remember being admitted. The tongue was moist and clean; appetite good; pulse 80.

From this date, her condition progressed very slowly. She remained tranquil; but was dull and reserved, though she gradually improved and became industrious. Her bodily health also underwent a very gradual amelioration. She required the occasional use of aperients; and she remained pale and thin for some time. She was ultimately discharged recovered, but not until nine months after admission, or at about the fourteenth month of the attack.

The treatment consisted as much, of course, in the regular exercise, occupation, and diet, etc., as in therapeutical agents; and also of the moral means employed, as the association with trained attendants, the cheerful amusements and occupations provided, the effect of which must not be lost sight of in the treatment of all the cases narrated.

In the next case to be related, the motility was involved to a still more marked degree. The notes are somewhat lengthy; and the case will, therefore, be given more in the form of a narrative.

CASE VIII. A. J., a female, single, aged 23, was admitted in April. She had been formerly a domestic servant, but lately a dressmaker. She was reported by her aunt to have had, when a child, a slight strangeness in her conduct, and to have had the idea that she had

committed some unpardonable sin. The aunt, however, gave but a very obscure account of this circumstance; and nothing satisfactory could be made of the story. The attack was reported in the order of admission to be of fourteen days' duration; and nothing more is known about it.

On admission, the patient gave a lucid account of her own mental state. She appeared clear in her intellect and memory with respect to what had passed. She talked in an excited, rapid manner; said she was tormented with the thought that she had rejected Jesus; that she had felt that she did not and could not believe in him; that she had curious sensations and violent beatings of her heart; and felt that her "thinking mind" was gone. All this, and much more of similar kind, was told in a fervent, anxious tone of voice. The sentences were uttered in a very rapid but connected manner, and were interspersed with deep groans. She complained also that she could not sleep; she said, "Oh, when I close my eyelids, the events of the past fortnight come before my eyes." She was all the while on the move; resting first on one foot, and then on the other; looking anxiously about her; frequently turning her head; even while speaking, fidgeting with her apron-string; biting her nails, which bled and were torn by her frequent biting. The expression was anxious, piercing. Her trunk was bent eagerly forward toward the person she addressed. Nevertheless, she did not appear ill, except from a slight pallor which was present. The tongue was moist; the bowels were regular; and she took her food well. Pulse 90. Not much variation in the case occurred up to the thirty-fifth day; the admission being on the fourteenth. The constant mental anguish, restlessness, and agitation of body; the same gloomy thoughts on religion—that she had neglected the Saviour—continued.

35th Day. She said she was possessed of the devil; that she was obliged to say, "God preserve my body, and the devil take my soul;" and since that she had been worse. She felt strange sensations in her inside, like something hot. The countenance was more haggard; the restlessness was unabated. She had no pain in the head; she ate heartily; the bowels acted regularly; the tongue was furred.

Aperients were repeated every other day for ten days, without any apparent benefit. The tongue remained furred; her mental anguish and constant restlessness continued. The pupils on the thirty-seventh day were observed to be dilated, but equal. On the forty-third day, opiates at bedtime were prescribed, and continued for five days. She slept rather better for three nights; and then no further benefit accrued, as noted in the following remarks.

48th Day. The same mental condition continued. The draught had been gradually increased in strength, but now produced vomiting; and the appetite was not so good. The restlessness and agitation, and the belief that she was tormented by the devil, were unabated. The pupils were large, but equal. The head was ordered to be shaved, and a blister applied to the scalp.

49th Day. She was worse. She was extremely agitated; made several attempts to seize the carving-knife at dinner, both yesterday and to-day. She continued to exclaim, "The old devil's got me." She rushed about from place to place.

50th Day. A slight difference was observed between the pupils, the left being rather larger than the right.

52nd Day. She had an anxious, wild expression; and was constantly moaning aloud, "Oh! that old devil!" The restlessness continued; she rocked from foot to foot while standing; twisted her apron-string; pinched her flesh; bit her nails. She made repeated attempts at suicide; but took her food, and slept well after taking a drachm and a half of tincture of henbane at night. Pulse 120.

56th Day. She was more tranquil. The same illusions and delusions continued, but with less force. She said she was prompted to evil by the devil; that the devil made her think all sorts of wicked things. She said she was to live for ever. She had continued to take the henbane regularly. The pupils were both large, and acted irregularly. She slept better. The tongue was clean. She took food well.

78th Day. The notes do not show that her condition was materially altered up to this date. The anxious expression, restlessness, and agitation still continued. On this day, she said "she was married to the devil," which was a new horror to her. She had also the delusion that one of the other patients was the Saviour, and was constantly going down on her knees and praying to her. The patient addressed was worried and annoyed by her importunate entreaties, and treated her rudely, repulsing her; by which A. I. became greatly agitated. She was thinner, but ate well. The bowels acted daily.

84th Day. She had a fresh delusion—that a newly arrived patient was the Virgin Mary; and that a baby in the ward, belonging to another patient, was the infant Saviour; and that the father of the infant, who called to see his wife, was God. She addressed her prayers to all of them. The agitation and constant motion continued. She had not made such determined efforts to injure herself. She was constantly tortured by vain regrets; as, if she had done or said this or that, then other consequences would have occurred. She was constantly imploring God to pardon her.

From the 84th to the 123rd day, there was a slight amount of improvement. On the 123rd day, she had constant mental torment, but slightly less severe. She still followed me about, saying, "Oh, do give me one more chance." She was in a restless state; had picked her ears, which were bleeding. The nails were sore from being constantly bitten. The tongue was clean. The bowels had been inclined to be constipated for some time past. She said she felt as if she had no inside. She had not menstruated since admission. She was ordered to take aloes and castic pills daily.

128th Day. She was more tranquil, but still moaned when addressed. The bowels acted regularly. She had gained flesh.

144th Day. She was depressed, and cried when spoken to; but continued more tranquil. She was ordered to be taken out for continuous walking exercise twice daily.

She was induced to work in the laundry on the 154th day, where she continued gradually to improve; and on the 182nd day, it is noted that she was occasionally dull, but continued to work well. On the 187th day, menstruation became re-established. Her improvement progressed daily from this time. She continued to be constantly employed in domestic work from the above day up to the date of her discharge, which was on the 390th day; but the last two months of the time she spent at home with relatives, being "absent on trial".

Medicines did not appear to have much influence on the foregoing case. Aperients were fairly tried, without any marked benefit at the earlier period of the case; though towards the close they appeared to assist in re-establishing the catamenia. Opiates and sedatives were tried to relieve the restless agitation, and their administration appeared to have a temporary benefit only; but the transient effect appeared to be of use in allowing the moral means of employment in the laundry to be commenced. Shaving and blistering the scalp were followed by no good result; the patient was more excited, indeed, after them than before; but the suicidal excitement commenced before the remedy was applied. The greatest benefit was derived from the moral treatment, and with exercise, occupation, and constant employ-

ment, which were resorted to as early as the patient could be made to use them.

[To be continued.]

Transactions of Branches.

READING BRANCH.

REPORT OF THE READING PATHOLOGICAL SOCIETY.

By H. COLLEY MARCH, M.B.

[Continued from page 549.]

PUERPERAL CASES.

Infection from Erysipelas: Puerperal or Typhoid Fever.

A deeply interesting puerperal case was related by Mr. HARRISON. He stated that, on Sunday, March 16th, 1862, a lady was delivered of her fourth child by an easy natural labour. She progressed perfectly well till Tuesday evening, when she was seized with a decided rigor. The lacteal and the lochial discharges, however, were not interrupted. On Wednesday, she took a dessert-spoonful of castor-oil; this caused one feculent evacuation, which was followed by a continuous involuntary watery discharge from the bowels. Late in the evening, when forty minims of tincture of opium were given, the skin was moist; the countenance distressed; the pulse soft, flickering, and very irregular. She complained of severe pain over the whole of the right side of the body, but especially over that of the thorax, increased by turning towards it, and aggravated by the movements of respiration. When she lay quite still, her breathing did not seem embarrassed; nor could any abnormal sounds be discovered by percussion or by auscultation. She was not distressed by gradual firm pressure on the abdomen, which was not at all tympanic; but the entire surface of her body was intensely sensitive. She complained of acute pain when she was touched ever so gently, and almost screamed when the finger was suddenly laid upon her tongue. This organ was moist, and its papillæ were slightly elevated. Three grains of calomel were administered, and two hours afterwards, as the diarrhoea still continued, a starch enema, containing twenty minims of laudanum.

On Thursday morning she appeared better; the diarrhoea had ceased, and she had slept. The lochial and lacteal discharges continued natural; but, as the effort to suckle her infant fatigued her, it was abandoned. She took some citrate of ammonia every three hours. At ten o'clock in the evening she was seized with a sudden collapse, and vomited a large quantity of greenish odourless liquid; after which she felt relieved. A similar seizure came upon her towards morning, and again in the evening, when, in spite of the administration of stimulants and nutritive enemata, she expired; her death occurring on the sixth day after labour. There was no *post mortem* examination. Mr. Harrison did not see the case till the last day, and it was then hopeless. Its interest arises from a consideration of the nature of the disease that proved so destructive.

Dr. H., who saw the patient, considers that she died of typhoid fever. Mr. Harrison, on the contrary, believes the malady to have been *puerperal* fever; but both gentlemen agree as to the mode of infection. There was in the neighbourhood, a virulent case of erysipelas. The same medical man, and the same nurse that had attended the case of erysipelas, came to assist the delivery of the woman in question. Under these circumstances, if no evil consequences had arisen, she would indeed have borne a charmed life. The accoucher, it is true, between his attendance on these two cases, delivered a woman who most fortunately did well; but the nurse, though strict ablution and change of at-

tire were enjoined upon her, went directly from one bedside to the other.

Dr. H. believes that a poison of an erysipelatous origin, was imported by the nurse, and being received into the system of the patient by her lungs, was developed into typhoid fever; and he bases his opinion on the facts, that there were no signs of pulmonary or hepatic abscesses, and that the very prominent intestinal symptoms were of a decidedly typhoid character.

But, on the other hand, no one has ever known the poison of erysipelas to produce typhoid fever, or that of typhoid fever to give rise to erysipelas; while it has been proved by countless instances that erysipelas and puerperal fever are convertible—either into the other. Thus, there are very strong *à priori* reasons for believing that the case in question was one of puerperal fever; and it is left to inquire whether the symptoms necessarily *exclude* such a conclusion. Quite the contrary, as it would seem; for, while the absence of an autopsy leaves undecided the existence or non-existence of pyæmic suppurations, there was undoubted evidence in the painful breathing of some pulmonary mischief; and nothing is more certain than that, in instances of putrid infection, there is often a violent natural effort towards the elimination of the poison by the intestinal mucous membrane. And in fine, the very marked hyperæsthesia of the skin is a symptom explicable far less by the typhoid, than by the puerperal theory. The means of preventing the occurrence of puerperal fever was a subject that the Society earnestly discussed; and strongly recommended that gentlemen engaged in obstetric practice should exercise extreme caution in attending any patient whose disease might be of an inflammatory nature, and should never, on any account, personally make a *post mortem* examination.

Death of Fetus in Utero: Removal: Recovery. Mr. VINES related the following case. On July 15th, 1862, he saw Mrs. H., a woman of strumous habit, aged 32. She had been married six years, but had had no child. The catamenia had ceased eight months previously, and she quickened at the usual time. Seven days before she was seen, some water came away *per vaginam*, followed by a continuous offensive sanious discharge, and by aching pains in the back and bowels. On an external view, the uterus, instead of lying in its usual site in the median line, occupied a laterally oblique position. On a vaginal examination, the pelvis was found much contracted; Mr. Vines estimating the antero-posterior and lateral diameters of the brim respectively at 2½ and 3½ inches, and of the outlet respectively at 4 and 3 inches. By no efforts could the os uteri be reached with the finger. A solid tumour was felt pressing down, as it were, towards the hollow of the sacrum. It was conjectured that the uterus was displaced, and its os tilted forwards behind the symphysis pubis; but the woman had at no time any difficulty in evacuating either rectum or bladder.

The pains continued of the same non-parturient character, and the symptoms remained unaltered, till the 17th, when portions of a brain-like substance passed down the vagina. On the 18th, on examination, the head of a child was felt presenting; the scalp loose, and the cranial bones collapsed. As the labour did not progress, ergot was administered; and when the uterus in three hours had given no response, the child, in an extremely decomposed state, was removed by the blunt hook. The rotten funis gave way in an attempt to remove the placenta; and several endeavours to introduce the hand into the uterus, with the same object, entirely failed. Until the 21st, as the woman seemed comfortable, no further steps were taken; but, as she then complained of tenderness on pressure over the abdomen, and as the bowels had not acted since her delivery, a turpentine enema was administered, with the result, in three hours, of emptying the rectum and expelling the

placenta. Her subsequent recovery was natural and complete.

Mr. Vines quoted a very similar case, reported by Dr. Merriman.

DISEASE OF THE SUPRARENAL BODIES.

Three cases of Addison's disease were brought before the Society.

Tubercular Disease of Suprarenal Capsules: Slight Bronzing of Skin. Mr. F. WORKMAN presented two suprarenal capsules from a man aged 33, who had been a cavalry soldier. About four years prior to his death, his horse fell on him, and he sustained considerable injury in his loins; and for some months subsequently he was treated in a military hospital for lumbar pains and general debility. Though he partially recovered, he was discharged from the army as unfit for duty; and after a time was engaged at some iron-works. In such occupation he remained for six or eight months, when increasing debility, accompanied with occasional sickness, compelled him to abandon all labour. About eighteen months before his end, his face and upper extremities became slightly bronzed; but this colour did not progressively deepen. The only prominent symptom was weakness, which increased in intensity till he died, after a long and painful struggle for breath.

At the autopsy, both suprarenal capsules were found filled with tubercular matter. The lungs contained a few miliary tubercles. The heart was not examined; but some members of the Society thought that the man's final agony might have been due to fibrinous concretions in that organ.

Tubercle of Suprarenal Capsules: Enlargement of Liver: Partial Discoloration of Skin. Dr. WOODHOUSE related the case of a gentleman who died on August 3rd, 1862, aged 63. He had always had a sallow complexion, and was of gouty descent. He came under treatment in the spring of the year, suffering from a variety of slight ailments. In April, some spots appeared on the palms of his hands. Debility and emaciation came on gradually. His legs became oedematous, and covered with purpuric spots of the size of a crown-piece, which disappeared under the use of lemon-juice, returning whenever it was discontinued. Colliquative sweats and diarrhoea troubled him. No organic disease could be detected. Some patches of a slightly tawny tint were observed on his forehead and left temple. There was, however, no nausea or vomiting. In July, it was evident that the liver was enlarged; and some fluctuation was detected in the abdomen. He finally sank from asthenia.

At the autopsy, the peritoneum was found to be granular. The liver was very large, and generally granular. The stomach was healthy, but elongated and displaced by the liver. The spleen was very large and friable, and adherent to the abdominal wall, and bore on its surface a walnut-sized tubercular concretion. The pancreas was healthy. No deposits could be felt in the lungs. The heart was not opened. The kidneys were natural, but surrounded by much fat. Both suprarenal capsules were enlarged, and infiltrated with tubercular matter.

Disease of Suprarenal Capsules: Bronzed Skin: Death from Asthenia. Mr. HARRISON related the case of Mrs. P., whom he saw on June 16th, 1862. She was 44 years old, married, had had two children, and still menstruated. Four months previously, she was well, and of a fair complexion. Then she began to fail. She was attacked by great and increasing weakness, constant nausea, occasional vomiting, variable appetite, frequent lumbar and abdominal pains, and restless nights, while her skin was becoming swarthy. When seen by Mr. Harrison, this discoloration was most marked on the forehead and face, and at the bend of the elbows and hams. No organic

disease could be detected, and she died of asthenia six weeks afterwards.

At the autopsy, only the abdomen was examined. The cæcum was greatly distended with air, and occupied the centre of the hypogastrium. The interior of the left suprarenal capsule was softened and broken up, leaving only a coriaceous shell. The right was in a similar but less advanced condition. Both capsules were of a natural size. The kidneys and the other abdominal organs were healthy.

REMARKS. The disease thus illustrated remains a pathological puzzle. It has hardly one constant symptom. There may be decided bronzing of the skin, and the suprarenal capsules may be healthy; or these organs may be extensively diseased, and the skin be immaculate. There may be no irritability of stomach; and even when there is ulceration of the mucous membrane of this viscus, it is doubtful whether a disturbed cerebral circulation may not have excited vomiting, and continued vomiting have produced gastritis.

The condition of the semilunar ganglia was not observed in any of the above three illustrative cases.

Finally, nothing is known of the causes of the disease. A blow on the loins seemed the starting-point in one case; and in others, intense grief and insufficient food have been mentioned; while tubercle, fatty degeneration, and cancer are commonly the destructive agents. Dr. Addison mentions a case in which an occlusion of the vein was the only mischief in the suprarenal capsule.

[To be continued.]

SOUTH MIDLAND BRANCH.

ON THE DANGER OF EMPLOYING EXTRACT OF NUX VOMICA IN HABITUAL APERIENTS.

By ASHEY G. OSDORN, Esq., Northampton.

[Read at Northampton, October 22nd, 1863.]

THE more frequent relation of untoward events in practice would contribute, I think, almost as much to the improvement of our art as the detail and discussion of rare and successful cases; for we all know the deep impression which is left on our minds by an unfortunate and unlooked for event, though, perhaps, but for the occurrence of the particular case which has terminated unfavourably, we might still have used a hazardous mode of treatment, or been ignorant of some important pathological fact.

It seems probable that nux vomica and its alkaloid strychnia have been employed therapeutically much more of late years than formerly, since it has become generally known that the addition of either of these drugs to laxative preparations or stomachic tonics is of great value where constipation is dependent on debility of the muscular coat of the intestinal canal, or where oppression and fulness at stomach arise from the chyme remaining too long in an indolent viscus. I have hence drawn up the following case, where, though the extract of nux vomica was prescribed apparently with good effect for a long time, yet tetanic convulsions at length manifested themselves; and, though death seemed caused rather by syncope than spasm, as I think the case will show, yet the practical lesson to be learned is, that the extract is a hazardous adjunct to an habitual aperient, since we are not secure from the poisonous action of nux vomica, though it may have been exhibited with the best possible effect for weeks and months.

G. W., aged 60, a tall spare man, of sedentary habits and melancholic temperament, had had complete paraplegia for more than a year, probably from disease of the spinal cord, when I first saw him, December 1st, 1859. I was consulted simply to prescribe an aperient, as he had found his ordinary purgative medicines ineffectual to overcome the torpidity of the semi-paralysed

bowel; and a friend, an eminent surgeon, had told him that the constipation would increase till the rectum might require to be scooped out. I prescribed half a grain of extract of *nux vomica*, with five grains of compound aloes pill, directing him to take one or two such pills at bed-time, always allowing two nights between the doses. With their aid, he could ensure a movement within thirty hours of taking them; and as he sometimes found two act rather powerfully, he lessened the dose to a pill and a half.

He continued their use till the following July, often expressing the comfort he derived from them. During these seven months, I frequently inquired if he felt any spasm or anything unusual, but he assured me that the spasms were no worse than ordinary, and that he had had them more or less since his paralysis.

As far as I could judge, no ill effects seemed to have arisen, or to be likely to arise, till Monday, July 2nd, 1860, when he was seized after his dinner with a strong convulsion; during which, the nurse said, he stretched out his legs and arms, lay with his mouth open, his eyes staring, the nostrils and fauces livid. Whilst convulsed, he seemed to gasp for breath, and was in the fit more or less for nearly half an hour. As he was unconscious after it had passed away of what had happened, his nurse did not send for me, thinking that the fit arose from having eaten a hearty dinner.

On Wednesday, he had a similar attack, both before and after breakfast, and his face and hand continued stiff and cramped. I was then first informed of these attacks, and found him suffering from severe muscular contractions of the face and hands; there were remissions of these, but no entire cessation, whilst every now and then the facial contortions were hideous. Concluding that the convulsions were due to the accumulative action of the strychnia on the spinal cord, I ordered a dose of castor oil immediately, with colocynth and henbane at bed-time, as he had taken two of his pills the previous night which had not operated. The twitches were continued with diminished force till the bowels were relieved in the evening.

The following day he was comfortable, and there were no twitches, only he was much prostrated, and scarcely had strength to expel the phlegm which collected in the bronchi.

On July 6th, whilst being supported to eat his mutton-chop, for, feeling stronger than usual, he declined to use the bed-rest, the nurse noticed him two or three times very faint, and once the meat lay motionless in his mouth; however, he rallied sufficiently to eat another piece, but soon again became faint and died; there was no catching of his breath, indicative of spasm of the diaphragm, nor convulsion of any sort.

In the seven months, he took forty-eight grains of the extract, generally in three-quarter grain doses, being under two grains per week.

REMARKS. 1. I fear he may have weakened himself by taking the pills too often, as he found them relieve his bowels.

2. The specific action of *nux vomica* may be manifested, though long taken with impunity, and though it move the bowels and do not lodge there so as to accumulate in bulk in the canal, yet its forces collect in the spinal system, and are manifested powerfully and without warning.

3. Hence arise its dangers as an adjunct to an habitual aperient.

4. The faintings were from the weakened heart, and his death arose from syncope, for he had had no spasm for about forty hours before his death.

DESIDERATA. I will only add that, we seem to need some drug or plan of treatment which, without counteracting the aperient effect of *nux vomica*, may render it less liable to bring on convulsive actions, just as the exhibition of chlorate of potash during a course of mercury

is said to prevent ptialism. I do not know if camphor would have that effect; and, in the absence of any drug that can be relied on for the purpose, I think we should prescribe a second aperient without any preparation of the *nux vomica*, to be taken at long alternations of the drug, of whose capricious action this paper affords a painful example.

[Dr. PALEY remarked that probably organic disease of the spinal cord or cerebellum existed in this case, and that the convulsions might have been dependent on it rather than on the drug. In the only case of death from strychnia that he had witnessed, the patient was conscious during the paroxysm, whilst here there was unconsciousness, which would probably be the case if the convulsions arose from disease.]

British Medical Journal.

SATURDAY, DECEMBER 5TH, 1863.

A POOR-LAW MEDICAL OFFICER'S DUTIES.

DR. GRIFFIN, three months ago, was appointed surgeon to one of the Poor-law districts of Southampton, and is now unable to discharge his duties in consequence of an attack of scarlet fever. Dr. Griffin, it must be observed, is the successor of Dr. Dusautoy, who, we are told, attributed his death to the enormous amount of work he had done in this very office.

"Of your late district officer" (writes Dr. Griffin from his sick room) "I would add that there is not one man in a million who could work, work, work continuously on as he did; not going to bed for two or three nights together; and often taking only one meal a day. His was an untiring, ever-active nature; but it killed him. The disease he suffered from did not; he died used-up, worn-out, exhausted."

The sudden incapacity, through illness, of Dr. Griffin, has thrown the Guardians into a difficulty, and has been the cause of bringing up revelations well worthy of especial note. At a meeting of the Guardians, the Deputy-President of the Board thus details his woes on the subject:

"He was sorry to hear of the illness of Dr. Griffin, whose father came to him on the evening of that day week, and told him that in consequence of the doctor's suffering from scarlet fever he would be unable to discharge his duties as medical officer of No. 2 district. He thereupon saw Dr. Cheeseman, who said that it would be impossible for him, with his own private practice, to undertake the task. He consulted with the clerk; and they went, during the following day, to more than a dozen medical gentlemen in the town to ask them to undertake the duties; but all of them refused the responsibility. On Tuesday evening, a deputation from the Board waited upon Dr. Hearne, to solicit his assistance; and he, to his great credit, readily undertook, with his assistants, the laborious duties. Had it been otherwise, he did not know what they could have done. There they were, then, when they called upon Dr. Hearne, with 150 patients, who had not been seen for two days—some of them, no doubt, in a dying state—with no medical gentleman to render assistance; and he

really thought the earnest thanks of that Board were due to Dr. Hearne for the handsome manner in which he undertook the duties. Dr. Lake would give them further information.

"Dr. Lake said that he attended the Board at the request of the deputy-president, whom he, with Dr. William Bullar, happened to meet at the Infirmary in search of a medical gentleman to undertake Dr. Griffin's duties. Being acquainted with Dr. Griffin—and, in fact, attendant upon him during his illness—he stated to the deputy-president what he requested him (Dr. Lake) to report to the Board. It was to the effect, that the work which he understood from Dr. Griffin he had to do was so enormous that it was simply impossible for any one man to do it. If one had thirty distinct visits to make in a day, it was a hard day's work; but yet Dr. Griffin told him that he had an average of sixty per day to see, besides his own private patients. He truly said 'to see,' because it would be utterly impossible for them to be properly attended to. Dr. Griffin's letter showed the enormous amount of work a man could get through when forced to do it. He had the pleasure of conversing with the late Dr. Dusautoy a few days before he died, and he to him entirely imputed his death to the enormous amount of work which he had been foolish enough to do; and he (Dr. Lake) thoroughly believed that overwork was the cause of Dr. Dusautoy's death. Dr. Griffin was clearly going on in the same way. Although he had only held his appointment something like three months, yet such was the effect that every one could see his altered condition; and although it would, of course, be absurd to say that his present illness was due to overwork, it was, no doubt, partially attributable to the exhausted state to which he had been brought. He was sure that the Guardians had only to be made acquainted with such a state of things in order to take some steps with a view to reducing the enormous amount of work which was expected of the one man appointed to this district. He could only say that it was simply impossible for one man to do the work Dr. Griffin had lately been doing, with justice to the patients, or even long surviving it himself. Dr. Dusautoy was a man of iron strength, and appears to have done more than a great many men could have done. If some alterations were not made, Dr. Griffin's health would suffer most seriously."

The Board, after some discussion, determined to refer Dr. Griffin's letter (containing a detailed account of his work, and referred to below) to a committee; and also passed a resolution thanking Dr. Hearne for undertaking, temporarily, the unenviable and admittedly suicidal business of Poor-law surgeon, and mildly condemning the doctors who refused the honour and glory of the thing:

"That the thanks of this Board be given to Dr. Hearne, for the kind manner in which when called upon he took upon himself the responsibility of attending to the duties of Dr. Griffin, after more than twelve medical men had been waited on and refused to have anything to do with it, except Mr. Bencraft, who promised to take half."

We differ from the Board. We think that the thanks of the profession are due to the twelve gentlemen of Southampton who refused to have anything to do with such an affair. We know the profession too well to believe that these gentlemen would not have given their services to the Board of Guardians, if the Board had thought fit to pay for such services as they ought to be paid for. Those

gentlemen, in our opinion, entered a most righteous protest against the abominable system revealed by this affair—of working their professional brethren to death, not metaphorically but literally; and paying them wages which a crossing-sweeper would not accept. *Three farthings a visit*, Dr. Griffin says are his wages. Here are his words:

"It is well to inform your Board that, supposing all the visits made, the medicines dispensed, the attendances given to paupers in the surgery, the certificates written—all four items clearly separate, and deserving of remuneration—were all added together, and the salary divided by them, it would not give more than *three-farthings a piece*. *Three-farthings for a visit*, when the doctor's brain has to be so worked that on its decision may often stand the death or life of the pauper."

"Three-farthings for a hurried midnight walk in a cold biting wind or drenching rain; and then to remain wet and cold in a wretched chair-less hovel, until another unit is added to the inmates of an already too densely populated court. *Three-farthings!* Per case it amounts to 9d."

Three farthings a visit! And these Guardians are surprised that no doctor is to be found to help them in their distress; that no doctor is to be found ambitious of earning this sort of wages. And they have the impertinence to cast an implied censure on the profession at large. Of course, the very last thing they think of doing is to inquire whether the blame of all this difficulty does not lie at their own door; whether it is not to be charged to the account of their own egregious and shameless parsimony. Instead of blaming these twelve righteous men—instead of whining over the miseries of 150 patients, some dying, without medical attendance—why did not the Board instantly say to the medical profession, Gentlemen, here is work to be done; do it, and we will pay your fees. Never will we believe that twelve medical men would then have been found to refuse to do this work. And what earthly claim have the Guardians upon them that they should do this work at the rate of ninepence per case, of three-farthings a visit, or of something after this kind of payment?

We have spoken of Dr. Griffin's letter to the Board, and we call especial attention to some of the facts contained in it. The letter, we may observe, was referred to a committee of the Board; but no one at the Board pretended that the statements contained in it were untrue. In this long letter to the Board, written in his sick room, Dr. Griffin details his sufferings—we can call them nothing else—during his three months' experience of office. He says he kept an account of the work done in order that he might at the end of six months show the Board "its enormousness; in truth, the utter impossibility of any man to perform it, or even half of it." But being taken ill, he sends in the account of the work for three months. Dr. Griffin shall tell his tale in his own words:

"During the three months, I have attended 1009 paupers, dispensed 5124 bottles of medicine, made 4801

visits to the paupers at their own homes, given 1541 attendances to paupers at the surgery, attended 25 midwifery cases, and written 502 certificates for the paupers.

"The probable work, then, for a whole year would be 4036 orders, 20,496 bottles of medicine, 19,204 visits, 6164 attendances at surgery, 100 midwifery cases, and 2008 certificates.

"Why, gentlemen, it is as much work nearly as is done by both Infirmary and Dispensary together; and yet these institutions have between them twelve medical men constantly acting, besides keeping dispensers and pupils.

"I entreat the Board, for the sake of the sick poor, not to hurry over these figures. Do, I pray you, gentlemen, consider well their meaning. Of what an amount of cruelty are they not significant when entrusted to the care of one man.

"On the 7th of September, I attended at the surgery 45 paupers; visited at their homes, 106; dispensed 101 bottles of medicine for them; wrote them 12 certificates; performed 2 serious operations; and confined 1 pauper; making in all 267 separate acts; and I received as a recompence for my work that day *eight shillings and two-pence three-farthings*.

"But what I have enumerated does not include all the parish requires for its medical officers; there is a 'parish book' to keep, in which the names, ages, residences, and diseases, are to be stated, and the days on which each separate act done is to be inserted—whether the pauper was visited by the officer, or came to the officer's surgery, and whether medicine was given to a patient without seeing him; also, the result of the patient's case, and observations—an incredibly hard task when the number on the book is nearly 300, and each one of those 300 is to be thought of: when you saw him—where—and then ticked down; a work which there has been only time to do on Sundays, and which always took six hours for the first week in the month, and three hours on the three succeeding weeks, and would have taken more had there been time to keep the book neatly and correctly.

"Doubtless, some members of your Board will say that these statements must be incorrect; our late officer did not complain; and, if he had thought there was any cruelty to the poor, he would soon have sought for a remedy.

"I must say of the late Dr. Dusautoy, that he, like as many district officers, did not trouble to make the poor get orders, if he knew they were paupers, and he well knew most of them. Then, again, if he had an order for one person in a family, and others subsequently sickened, he attended them without requiring further orders. In my list, your Board will see that numbers of families have had several ill in their houses; in some, the whole family, one after the other, with scarlet fever, measles, chicken-pox, and the like—each one of which, however, I made get a fresh order, thereby obtaining much disgrace at the first.

"Please, gentlemen, remember that there is not one man in a hundred who will sacrifice his private practice for the parish. Any well-to-do medical man will tell you that if he has thirty patients to visit in a day, it is more than he can well do.

"I sincerely trust your Board will consider earnestly and calmly these statements, and not permit any longer a system to go on, under which, in truth, 'seeing a pauper' expresses, in most cases, no more than a peep in at the door. How are you, my man?—well, you seem bad—send up for some medicine—and off goes the officer again, for a certain number must be seen.

"I would suggest that five shillings be paid for each case, supposing that the surgeon found the medicine; but four shillings only if the Guardians provided it—not too large a sum, when clubs pay four shillings a head, ill or well. Believing, gentlemen, that you really care

that justice should be done to and by all parties, I trust you will not look to by-gones for the amount you may deem it requisite to pay your medical officers; but that you will pay them that which will allow the duties to be performed, not in a manner that will just keep all things quiet, but in one that will be just to every one."

We have not given a sixth part of this letter, but have culled the above slips from it. And what are we to say of the state of things disclosed in it? There is really something sad, sickening, and disheartening, in the reading of these lines. Here we are told that Dr. Dusautoy sacrificed his life in the performance of these miserable and degrading labours; and here we find another gentleman ready to offer up his life also for the miserable wages of these Poor-law Guardians. We do not like to say a harsh word to Dr. Griffin in his distress; but we cannot help asking, Why all this tender and pathetic appeal to the mercies of the poor's guardian angels? Has he not, and has not the profession, the power in its own hands in this matter? And how can a man reconcile it to his conscience to undertake duties even the half of which, as he asserts, no man can perform? When we turn upon the Board of Guardians, and ask them how they can have the barefaced cruelty of paying Dr. Griffin 8s. 6½d. for a day's work, comprising attendance, etc., on 276 cases, including two serious operations and one confinement, what does the Board naturally answer? "Dr. Griffin is a man of years and experience, and a man of education: if he can't do the work, and don't like the pay, why does he accept the pay and undertake to do the work?"

However, we will now restrain our pen; and, truth to tell, the facts stated in Dr. Griffin's letter need no illustrating; they speak too eloquently of themselves. This only we will add—what we have too often had occasion to repeat—that the worst enemies our profession has to deal with do not live outside our professional ranks.

But what will the Board of Guardians do now? we cannot help but ask. They have been told by their own medical officer that the medical treatment of the sick, as now carried out, is a complete farce; that no one man can do one-half the work they have set one man to do; and that the daily routine of calling on and seeing patients is simply a routine affair of calling on and seeing them. Now that the truth has been told to these gentlemen, who can play the indignant so well against their medical officer when any one single case of neglect is brought against him, what position do they as a Board stand in, when they are told that the entire management of sick paupers, as carried on under their superintendence, is one huge system of neglect, and that the patients get neither proper attendance nor proper medicine? We verily believe that no more serious a charge was ever brought against a Poor-law system than has been brought against it through

this Board, and as might doubtless be brought against it through almost every other Board in the kingdom. We shall watch the result of this affair with interest—what the Committee will do with their doctor's letter, and how they will deal with its contents.

THE NEW MEDICAL COUNCIL.

THE second election of members of the Medical Council is now complete. The election is for five years; and the first quinquennial period having elapsed, a new—this second—election has taken place. The following are the names of the new members:—

J. H. Green, Esq., the late President.

Representatives of Medical Corporations. In England. George Burrows, M.D. (Royal College of Physicians of London); J. M. Arnott, Esq. (Royal College of Surgeons of England); and G. Cooper, Esq. (Apothecaries' Society). *In Scotland.* Alex. Wood, M.D., (Royal College of Physicians of Edinburgh); Andrew Wood, M.D. (Royal College of Surgeons of Edinburgh); J. G. Fleming, M.D. (Faculty of Physicians and Surgeons of Glasgow). *In Ireland.* Aquilla Smith, M.D. (King and Queen's College of Physicians); W. Hargrave, Esq. (Royal College of Surgeons); C. H. Leet, M.D. (Apothecaries' Hall).

Representatives of Universities. In England. H. W. Acland, M.D. (Oxford); G. E. Paget, M.D. (Cambridge); D. Embleton, M.D. (Durham); J. Storrar, M.D. (London). *In Scotland.* J. Syme, Esq. (Edinburgh and Aberdeen); Allen Thomson, M.D. (Glasgow and St. Andrew's). *In Ireland.* J. Apjohn, M.D. (Dublin); J. D. Corrigan, M.D. (Queen's University in Ireland).

Crown Nominees. For England. E. A. Parkes, M.D.; R. Quain, M.D.; W. Sharpey, M.D.; H. W. Rumsey, Esq. *For Scotland.* R. Christison, M.D. *For Ireland.* W. Stokes, M.D.

The new members of Council are, Dr. Parkes, Dr. Quain, Dr. Paget, and Mr. Rumsey; who take the places of Sir C. Hastings, Mr. Lawrence, Dr. Bond, and Mr. Teale.

Sir Benjamin Brodie was the first President of the first Council; and was succeeded by Mr. Green, the then representative of the Royal College of Surgeons. The vacancy thus occasioned was filled by Mr. Arnott. Numerous other retirements and deaths occurred during the past quinquennial period. Mr. Nussey was replaced by Mr. Cooper. Dr. Williams (of the Irish College of Surgeons) died, and was succeeded by Mr. Porter; who, again, soon died, and was succeeded by Mr. Hargrave. Dr. Allen Thomson was elected to fill the vacancy made by the death of Dr. Laurie. Dr. Baly succeeded Sir James Clark, who retired; and, on the death of Dr. Baly,

Dr. Sharpey was appointed. Dr. Watson retired, and Dr. Burrows was elected in his place. Mr. Watt succeeded Dr. Watson of Glasgow, who retired; and Mr. Watt, again, on account of bad health, retired, and was succeeded by Dr. Fleming. Hence, only thirteen of the original twenty-four members elected in 1858, now continue in office; viz., Dr. Acland, Dr. Apjohn, Dr. Corrigan, Dr. Christison, Dr. Embleton, Mr. Green, Mr. Leet, Dr. Aquilla Smith, Dr. Stokes, Dr. Storrar, Mr. Syme, Dr. Alexander Wood, and Dr. Andrew Wood.

A MEDICAL PERSECUTION.

EVERY medical reader, who has followed the four days' reports of the case of *Symm v. Dr. Fraser* and another, must have satisfied himself, from the very first, that the action was what the verdict has proved it to be—most unjust and unjustifiable. Yet who could feel certain as to what the decision of the jury might be until it was delivered? Mr. Chambers, in opening the case, thundered away in his usual style against the outrageous and abominable conduct of the doctors, stirring up everything he could imagine in the way of prejudice against them; but what must we now think of the morality of the proceeding in which this gentleman has acted so prominent and, no doubt, so lucrative a part? We hear of the morality of the bar: how does it tell in a case of this kind? It is now proved to demonstration by the verdict, and we apprehend it must have been from the first equally proved to demonstration to the acute and learned minds of the plaintiff's counsel, that the case had no other leg to stand upon than the money in the pocket of this poor wretched weakened lady, Mrs. Symm; and yet for five days two honourable and worthy members of our profession have been placed in the most painful and cruel of positions before the public—their reputation being at stake—through the legal proceedings taken by this feeble-minded old woman. Dr. Fraser and Dr. Andrews plainly and manifestly did nothing but their bare duty in the management of this patient. To prevent her from injuring other people or herself, they recommended that she should be placed, while suffering from delirium tremens—while raving mad, in other words—under proper control; and for this performance of their duty they are dragged like criminals before a court of justice, assailed in the strongest language by Mr. Chambers, and held up a whole week long to public indignation.

The result of this kind of proceedings is evident enough, as the Lord Chief Justice hinted. Medical men have already begun to fight shy of signing lunacy certificates; and soon they will also cease to protect the drunken madman, and the public, from the consequences of his madness. What doctor will take the responsibility of doing his duty in

these cases, if he is to run the risk of being subjected to such punishment as this? No doubt the existing public prejudice against mad doctors in particular has had much to do with the incitement and getting up of such an action as this. Clever people see which way the wind blows, and trim their sails accordingly. Even the noisy eloquence of Mr. Montagu Chambers would have probably scarcely sufficed to render viable this action, unless the public had been ready to jump at conclusions prejudicial to the profession in the matter of their dealings with lunatics. We believe that the thanks of the profession are due, in this matter, very much to the popular instruction issued by literary purveyors of the stamp of Mr. Charles Dickens and his *All the Year Round* scribes. The public do not read the calumnies on mad doctors week after week issued in *All the Year Round* and elsewhere, without imbibing strong prejudices against mad doctors and all doctors who deal in madness. Is it not more than probable, that some one or other of the jury in this very case may have entered the jury-box with his mind worked into a state of indignation through the calumnious fictions of Mr. Reade against doctors who deal with lunatics?

The utterly unfounded character of this action is shown both by the summing up of the judge and the instant giving of an unhesitating verdict; and we cannot but conclude that a very heavy moral responsibility hangs over those who brought it into a court of law. As the case now stands, it is evident that there were never any grounds or plea for such an action. It is not pretended that Dr. Fraser and Dr. Andrews had any other motive than the good of their patient in view when they recommended that restraint should be put on her. The only witnesses in favour of the charge made (that the lady's liberty was interrupted) were the lady herself and one Bennett; but on the other side were an overwhelming body of witnesses, and even her own friend Dr. Barnes, whom she herself had sent for, all giving evidence that she was properly treated. We must again call in question the nature and value of that article, the "morality of the bar", if it mean that a member of the bar, on the strength of such evidence, is justified in recommending and countenancing actions of this sort, and, above all, in aspersing the characters of—utterly and recklessly ruining, if his eloquence were effective—two honourable and honest doctors and gentlemen. Surely there must be some limit to which the license of the bar can honestly and honourably lead its members. Surely the mere taking of a fee or of the cooked-up dish of a brief from a lawyer does not justify a barrister in adopting all the insinuations and abuse contained in his instructions. Surely it is his duty to satisfy himself that there is some just ground for the cruel aspersions which he is dealing out *ore*

rotundo, according to instructions. The opinion of the Lord Chief Justice is clear enough; and we gladly record his honourable testimony to the character of the profession.

"The LORD CHIEF JUSTICE, in summing up, said this case was one of very great importance, involving as it did the question how far medical men, acting honestly and to the best of their judgment for the good of their patients, were responsible; and the jury ought to be careful not to impair the efficacy of medical assistance by exposing medical practitioners to be harassed by vexatious actions. He remarked that Dr. Barnes was a friend of the plaintiff herself, and had been called in as her choice, not the defendants'; that it was impossible to imagine a witness more reliable or impartial; and that his evidence was conclusive of the case in favour of the defence. And, adverting to the immense preponderance of evidence in support of it, he asked the jury if they could have any serious doubt upon it? What was there to oppose to it? Nothing but the evidence of the plaintiff herself and of Bennett. If they believed the other evidence, then there could be no doubt that it was the duty of the defendants, as her medical attendants, to do what they had done. No doubt the power which the law gave to medical men in these cases might be, and in rare instances had been, abused for interested purposes; but these instances were so rare that he hoped the public might continue to place that confidence in the members of this noble profession which had hitherto been reposed in them, and he believed was deserved. In these rare instances of abuse, however, to which he had referred, there was some interested motive at work. But what possible motive could there have been here, except the welfare of the patient? The learned counsel for the plaintiff himself, after all the evidence, had made no charge of bad motive, and only imputed entire ignorance and error. Could the jury believe that all the immense body of evidence adduced for the defence was a mass of delusion and hallucination, and that the plaintiff's condition had not been what it was described to have been? And, if they believed this evidence, could they doubt that, even if the medical men had directed that the plaintiff should be watched and restrained, they had done what was right, and for their patient's benefit? Let the jury put themselves in the position of these gentlemen, or of the friends and relatives of this person (the plaintiff), and let them ask whether, even supposing that the defendants were responsible for all that had been done to prevent her from getting out into the streets or throwing herself out of window, the jury would not consider that these gentlemen, so far from being proper subjects of condemnation and of censure, were not rather fit objects of gratitude and regard? The Lord Chief Justice, in conclusion, desired them to consider the case not only with reference to the interests of the individuals committed to the care of medical men, but also with a view to their interests in another sense; taking care not to impair or neutralise the energy and usefulness of medical assistance by exposing medical men unjustly to vexatious and harassing actions.

"At the close of the summing up, the jury barely turned round in the box, and at once returned their verdict for the defendants."

We will only add that, if ever there was a case in which the profession was called upon to defend its own rights and position by assisting their injured brethren, this is one. We have no hesitation in saying that it is the duty of our profession to sympathise with Dr. Fraser and Dr. Andrews in the most practical and unmistakable manner; namely, by holding them free from all pecuniary liabilities

in this matter. In thus defending the cause of these gentlemen, the profession is defending itself.

ALCOHOL REDIVIVUS.

DR. BAUDOT has submitted to critical and experimental investigation the conclusion of MM. Lallemand, Perrin, and Duroy, concerning the elimination of alcohol. He affirms that their conclusions are utterly erroneous, and that, in fact, *alcohol is completely destroyed—i. e., consumed—within the body.*

What will the teetotallers say to this new version of the matter? and when shall we arrive at the bottom of the well of science, and grasp hold on a positive truth? Alcohol, Dr. Baudot tells us, is oxidised and burnt within the tissues of the body. It does not escape from the organism unoxidised. In his papers on the subject, he argues first from analogy, and then from the facts which he has obtained as results of his experiments.

Analogy, he says, would leave not a shadow of doubt, that alcohol is decomposed within the living organism. Most of the analogous ternary principles, such as fat, starch, sugar, acetic, tartaric, malic acids, etc., are transformed by the nutritive powers. Why, then, should alcohol resist oxidation there? *A priori*, indeed, alcohol would appear to have an especial facility for oxidising. It burns in the air more readily than fats; and fats burn more readily than starch, sugar, etc. By the aid of spongy platinum, also, it oxidises in the air at ordinary temperatures. It rapidly oxidises, also, under the action of ferments. This surely is *a priori* evidence of its capacity for oxidising within the body.

Again, there is nothing in the body which should render the conditions for the oxidation of alcohol less favourable than in the open air. On the contrary, the animal machine is a much more powerful oxidising agent than the air and than our best-arranged apparatuses. It burns up—consumes—sugars and fats with facility; and, moreover, animal chemistry possesses powers of decomposition and recomposition which the chemist cannot imitate.

Then he argues, if we consider the profusion in which are spread around us the materials which undergo alcoholic fermentation; if we remember, that wine has been known from the earliest ages, that it has been sanctified by nearly all the religions of the world, and that instinct and taste imperiously lead us to its use—it would, indeed, be strange if the most important principle in wine were a substance useless and hurtful to the body. But hurtful it must be, if alcohol resist animal chemistry so as not to undergo the modifications necessary to render it of service to the body, and if it be merely taken into the body to be ejected from it. By general consent, however, wine has always been

accepted as an aliment—not indispensable, it is true, but useful and healthy; and it is a fact universally accepted by the workman, that the use of wine economises his bread and increases his strength. Modern science, also, had accepted this use of alcohol as a fact—without much examination, it is true. Liebig regarded it as a respiratory principle, as serving the purpose of nutrition. Bouchardat and Sandras admitted its oxidation in the body. Duchek pointed out its transformations into aldehyde—though here he was wrong. Vierordt observed that after the ingestion of alcohol, the quantity of carbonic acid exhaled was diminished. Klencke had asserted, it is true, that alcohol passed into the urine and the bile; but his observations were not regarded as of much account.

The opinion of the scientific world, therefore, up to a very recent time, was settled in favour of the oxidation of alcohol in the body—of its being useful as an aliment. But then came MM. Lallemand, Perrin, and Duroy, to disturb these settled notions. Their memoir made a great impression; it was honoured as a prize by the Academy of Sciences in 1861. The conclusions arrived at by these gentlemen were that: "Alcohol is not an aliment; alcohol is neither transformed nor destroyed within the body; alcohol is totally eliminated unchanged from the body, through the lungs, the skin, and especially the kidneys." These conclusions were accepted almost without discussion, and chiefly by reason of the high estimation in which their authors* were held, of the academic honours bestowed on their work, and of the good faith impressed on its pages. Moreover, their conclusions were founded on carefully performed experiments. They took the world by storm. No one protested against their assertions; and no one attempted to show that their conclusions were and are completely at variance with the experiments on which they were founded; and that the experiments, indeed, prove the very opposite of that which the authors themselves deduced from them.

Dr. Baudot then goes on to criticise those experiments; and affirms that from the experiments themselves we must perforce conclude, that alcohol may be completely decomposed within the body. A small—a very small quantity, he admits, may escape combustion, and so pass away with the urine, and through the skin and the lungs; but this happens because alcohol is a very volatile and soluble substance. As for the alcohol which is found in the blood and the tissues, all that can be said of it is, that it has not yet had time to undergo digestion. MM. Lallemand, Perrin, and Duroy, let it be noted, after taking the extremest care, and despite of all their efforts, only obtained 6 cubic centimetres of alcohol out of 225 centimetres taken into the body;

* M. Lallemand has been since carried off by yellow fever in Mexico.

and if we multiply these 6 by 10 to allow for errors, we shall then have only 60 cubic *centimètres* of alcohol found in the excretions. Consequently, there remain 165 cubic *centimètres* unaccounted for by them. "To me," says Dr. Baudot, "it appears evident and certain, that these 165 cubic *centimètres* of alcohol were destroyed and consumed within the body."

We will, on another occasion, give the experiments and calculations upon which Dr. Baudot founds his conclusions, which, if confirmed, will, we need hardly say, produce another revulsion in the opinions of philosophers concerning the use of alcohol. We cannot, unfortunately, say that it will produce much change in the potatory habits of the people; for, as far as we are aware, the conclusions of MM. Lallemand and Perrin, although crowned by the Academy of Sciences, and widely accepted, theoretically, by men of science, have never yet wrought any of the practical operations which ought to have resulted from men's belief in their truth. These conclusions have, we fear, never stopped the imbibition of a single glass of wine or spirits.

THE WEEK.

It is well to note that the Judges who last week gave judgment in the case of *La'Mert v. the Medical Council*, seemed to hint, that the Medical Council possessed, in the instance alluded to, more power than was proper for such a tribunal to possess. The Judges had nothing to do but to refuse the rule, as the "legislature, in its wisdom, had thought proper to intrust the Council to be exercised under this enactment, and the Court could not review their judgment." Mr. Chambers, however, suggested that the Council possessed "a very formidable power"; to which Mr. Justice Blackburn, replied "that, nevertheless, the Court had no power to interfere." We refer to the point, because it is more than probable that, if the Medical Bill come again under the consideration of Parliament, attempts will be made to subject the opinion of the Council, in such like cases, to a court of law's decision.

DR. BENICE JONES, as secretary to the Royal Institution, has issued, privately, an appeal to men of wealth, calling upon them to forward the great ends of the Royal Institution by enriching it with the needful funds. We trust his appeal may not be in vain; but we, unfortunately, have too many proofs staring us in the face of the neglectful treatment of science, and of men of science, by the Government of the country, that we cannot hope for any adequate response to the appeal. It is well to remark that every now and then, we find men of position and wealth, and even of science, who tell the world that

starvation is the best stimulus you can employ to those engaged in the study of nature's works. These labourers, it is said, would become drones if you paid them an adequate reward for the labour.

WE are happy to state that the Committee for promoting the testimonial to Dr. Lingen have collected sufficient funds to enable them to defray the whole of his legal expenses of the late trial, in which he was the defendant. Consequently, Baron Martin's suggestion on the motion for a new trial, that the plaintiff should not be called on for costs, will be carried out. The balance will be expended in the purchase of a piece of plate to be presented to Dr. Lingen as a memorial of the estimation in which he is so justly held by his friends.

THE American ("The United States") *Pharmacopœia* has got the start, after all, of the London *Pharmacopœia*. Which will beat in the long run has yet to be seen. It has just been published. Fifty-five new articles have been added to the list of drugs—a fact rather to be lamented than matter of congratulation, considering our very great ignorance of the real uses of so many of the drugs already of long established reputation. Twenty-six articles in the old *Pharmacopœia* list have been dismissed. Of new *preparations* it contains 111; and of the old ones, 37 have been left out. This production is "the fourth decennial revision". A vast amount of labour has been bestowed on its compilation. Colleges and corporations, etc., from all parts, have contributed by delegates to the Central Board sitting at Philadelphia. A raging civil war has not interfered with the settlement of the potions, lotions, and salves of the country which are to pass current and standard for the next ten years—"the recurring revision of our *Pharmacopœia* at decennial periods being now a fixed rule of the work." The Committee held 119 meetings, and had subcommittees also at work, which subcommittees sent up no less than 138 reports. It will be a curious incident, if this appearance of the United States *Pharmacopœia* should be the cause of still further delaying the publication of our British article. We may be sure that our British compilers will eagerly refer to this new work; and it will be strange indeed if they do not pick up in it some Yankee notions worthy of their attention. Will they still further delay the press in order to seize upon any such good things?

THE Dublin medical press has several important works *in esse et posse*. Professor Churchill is about to produce a new edition of his work on *Diseases of Women*. A reprint of Graves's *Clinical Medicine*, by Neligan, to which will be affixed a translation of

the preface to the French edition, written by Trouseau, is announced. A sixth edition of Neligan's *Medicines, their Uses, etc.*, is forthcoming, under Mr. Macnamara's care; and also a new edition of his *Materia Medica*, by Mr. Frazer. Mr. M. Collis is reported to be busied with the elaboration of a work on *Cancers and Analogous Tumours*. Dr. Apjohn has also a manual on the *History of the Metalloids*.

The Academy of Medicine has in one week lost two of its members, MM. Villermé and Pâtissier. Both of them have belonged to the Academy forty years.

THE LATE EDWARD TOWNSEND COX, ESQ.

MR. EDWARD TOWNSEND COX died at Birmingham on the 26th ult. Mr. Cox, until within the last few weeks, notwithstanding his great age, was constantly to be seen in the streets, walking with a firm elastic step, or driving in his pony carriage. His tall, commanding figure, slightly bowed by the weight of years, attracted general attention whenever he appeared in public. His long connection with the local charities, his reputation as a surgeon, and his singular independence not to say eccentricity, of character, had come to be regarded in the light of one of the institutions of the town. Mr. Cox was born in Deritend about 1769 or 1770. His father, the Rev. Thomas Cox, was Chaplain of St. John's Deritend.

Mr. Cox was educated at the Free Grammar School, and afterwards studied for five years at the General Hospital—then newly opened—under George Kennedy, the eminent surgeon. He then became a student at Guy's and St. Thomas's. On the completion of his studies, Mr. Cox settled at Stratford-on-Avon; but, finding a country life unsuited to his taste, he shortly removed to Birmingham. Here he speedily took high position amongst his professional brethren. He was for forty years surgeon to the Town Infirmary, and one of the surgeons to the General Dispensary. Later in life he took a very active part in establishing the Royal School of Medicine, and still later the Queen's College and Queen's Hospital owed much to his judgment and energy. Of the last-named institution he was for many years one of the honorary surgeons, an office he retained until his death. His interest in Queen's College was second only to that displayed by the founder, his son, whom he liberally assisted with funds to establish the institution. In addition to these appointments Mr. Cox had medical charge of the hospital at the barracks.

Of Mr. Cox's professional ability and reputation this is scarcely the proper place to speak. He was thoroughly learned in the science and practice of his art, and was largely endowed with those great qualifications of a good surgeon—clearness and quickness of perception, decision of character, and firmness of purpose. He was specially remarkable as a most successful surgeon accoucheur. To the honour of his memory it should also be recorded that when Jenner's great discovery was virulently opposed, Mr. Cox took an active part in combating popular prejudice. In short, as a surgeon, he was worthy to be enrolled in the long list of eminent practitioners who have done honour to Birmingham—the Johnstones, Bright, Pearson, Withering, Freer, Dickenson, and Wood. In all his dealings he was remarkable for that high sense of professional etiquette which especially stamped the character of the times and the school to which he belonged.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
BIRMINGHAM AND MIDLAND COUNTIES. [Ordinary.]	Medical Department of the Birmingham Library.	Thursday, December 10th, 6 P.M.

PAYMENT OF SUBSCRIPTIONS: SPECIAL NOTICE.

MEMBERS who have not yet paid their subscriptions for the present year are earnestly desired to remit them to the General Secretary before the end of December. Their attention is directed to the following laws of the British Medical Association.

15. The subscription to the Association shall be One Guinea annually; and each member on paying his subscription shall be entitled to receive the publications of the Association of the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous. If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid.

10. The name of no member shall remain on the books of the Association, whose arrears extend over three years; but the omission of the name from the list of members shall not be deemed, either in honour or equity, to relieve any member from his liability for the subscriptions due for the period during which he has availed himself of the privileges of membership.

T. WATKIN WILLIAMS, *General Secretary*.

13, Newhall Street, Birmingham, December 1st, 1863.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE tenth meeting was held at the Fountain Hotel, Canterbury, on November 26th. Several members attended from Dover, Folkestone, Ashford, Faversham, and other places. J. REID, Esq., of Canterbury, was called to Chair.

A letter was read from Dr. Armstrong, regretting his unavoidable absence.

Next Meeting. Mr. BOWLES proposed that the meeting on March 24th, 1864, should be held at Ashford; also, that Mr. Wilks be requested to act as local chairman for that meeting. This was seconded by Mr. ANDREWS, and carried.

Papers. The following papers were read:—

1. On Drowning. By R. L. Bowles, Esq. This paper, which will be arranged for publication in the JOURNAL, was brought forward to induce the members to consider the different ready methods recommended for the recovery of drowned persons. The author himself strongly advocated the Marshall Hall plan, and gave an interesting review of the whole subject. A partial discussion followed; and it is proposed to consider the subject again at the next meeting.

2. Mr. REID read some very interesting observations on Secondary Cow-Pox. He described the different appearances produced by second vaccination, according as persons were more or less protected by the first; and pointed out the analogy between those modified forms of cow-pox and the various modified forms of small-pox after vaccination. The paper will be forwarded for publication.

3. Case of Placenta Prævia, in which the Air Pessary was applied with good effect. By W. Sankey, Esq.

After the meeting, seventeen members dined together; Mr. Alderman Cooper of Canterbury presided.

Reports of Societies.

OBSTETRICAL SOCIETY OF LONDON.

NOVEMBER 4TH, 1863.

ROBERT BARNES, M.D., in the Chair.

Four gentlemen were elected Fellows of the Society.

Vaginal Lithotomy. Mr. BAKER BROWN exhibited a calculus, weighing two ounces and five drachms, which he had removed from the bladder by vaginal lithotomy. The stone had apparently been in the bladder for eight years. It was removed through an incision extending from the neck of the bladder to near the os uteri. The wound was afterwards closed by seven silver sutures, and the patient recovered without a single bad symptom.

ON COMBINED EXTERNAL AND INTERNAL VERSION.

BY BRAXTON HICKS, M.D., F.R.S.

The author related twenty cases in which he had operated by "bimanual version," including eight cases of placenta prævia, one of accidental hæmorrhage, and two in which he had changed arm-presentations into cephalic, in both of which the children were born alive. After alluding to the discovery of the mobility of the fetus made by the Germans, and also to the plan of pushing on the child by one or two fingers through the os, he proceeded to show the mode of combining both movements, by acting on both extremities of the child, with a much greater certainty as to the result in the majority of cases requiring version. He pointed out the principles on which the plan was based—viz., the mobility of the child *in utero*, varying according to the activity of the uterus; the position of a knee within a short distance of the os, when the child was transverse; the ease with which the breech was brought to the os with the foot upon it, when the child was already transverse. The movement of the child *in utero* was accomplished by pressing on one side of the breech at the fundus, in ordinary head-presentations, by a series of gentle palpations; or by a gliding pressure on the abdominal parietes, so as to follow up the fetus as it receded under the impulse, by continuing of which the breech was brought to the middle of the uterus on one side; at the same time, the head was pushed up by a finger or two through the os, so as to raise it above the brim to the middle of the uterus on the other side. The child being thus more or less transverse, the knee could be generally easily seized; if not, the breech must be depressed to the os, and the foot secured. Dr. HICKS dwelt upon the easy application of the operation to placenta prævia, as shown in the cases he recorded; and stated that it was particularly of use in those cases where the os was so little dilated that the hand could not enter. He, however, laid great stress upon the importance of not using any more traction than the weight of the arm could produce, whereby the child was used as a plug, while time was given to rally the patient, for the os to dilate, and for the pains to come on. In almost every case he waited for natural efforts to deliver, only gently assisting. He had in none seen the slightest bleeding, internal or external, after the leg was once fairly through. Dr. HICKS then pointed out the mode of producing cephalic version, which he had found very practicable in certain cases of transverse presentation, by placing the head, already secured between the outside and inside hand, into the os, and retaining the external hand on the head till the uterus had moulded itself to the form of the head and shoulders. He also showed that this mode of pressing the head into the os was a means of restoring prolapse of the funis in some cases, as occurred in two cases recorded by him, and thought it would in similar cases be found to be a satisfactory mode of treatment. Allusion

was then made to the advantages of early version, and to the class of cases to which it was applicable. The circumstances that rose to interfere with the plan were pointed out, and the means of combating them. The author remarked, that although in confirmed arm-presentations it was scarcely possible to expect this plan to succeed, yet these cases need seldom occur to a vigilant practitioner, as he had the means of avoiding such cases, if called early, by bimanual version. Perhaps the greatest value of this mode is the capability of version long before it can be performed by any other method.

Dr. CLEVELAND inquired whether, in practising the operation now recommended, the right hand could be employed within the vagina as well as the left. This was important, as many practitioners were accustomed to use the right hand for manipulations, and to such the use of the other hand might prove awkward.

Mr. BAKER BROWN had no doubt that the plan recommended by Dr. Hicks would be found in many cases most useful, although at first more difficult than the old plan. He (Mr. Baker Brown) looked upon the operation of turning as one of the simplest and easiest in obstetric surgery. In reply to Dr. Cleveland, he believed that the left hand should always be employed, because, the patient lying in the usual position on her left side, the convexity of the hand would pass readily into the hollow of the sacrum; whereas, if the right were used, it would be found very difficult to twist the arm round to introduce the hand with facility into the womb.

Dr. BROADBENT related a case which occurred to him four years and a half ago, when resident obstetric officer to St. Mary's Hospital, in which he was compelled to resort to the method of turning described by Dr. Hicks, from the impossibility of effecting version in the ordinary manner. He was sent for to a woman in puerperal convulsions, so severe that, soon after reaching her, she was for a time supposed to be dead. As respiration became re-established, chloroform was administered. On examination, he found the posterior part of the os and cervix uteri affected with cancer, which involved so large a proportion of the circumference as to leave no hope of dilatation by the natural efforts. Deeming it necessary to effect delivery, he determined to turn. It was, however, impossible to introduce more than two fingers into the uterus, and these only by using a certain amount of force. His right hand was supporting the uterus externally, and the idea occurred to him to attempt the version by the co-operation of the two hands. The child was turned very readily; but great difficulty was experienced in getting the feet one after the other through the rigid os, and the head was extracted only after prolonged efforts. The child died from pressure on the cord; and the mother, becoming violently maniacal, and refusing all food, also died. He had been astonished at the ease with which the child was turned by the method in question, which, however, he had not subsequently again tried.

Dr. HALL DAVIS could from experience bear testimony to the practicability and value of the operation of turning the child by external manipulation, as proposed by Dr. Hicks. He must, however, confess that he had found Dr. Hicks's method most successful when conjoined with the introduction of two fingers of the left hand to hook down the knee, or of the entire hand when the foot could not otherwise be reached. In some cases he had found version by one foot impossible; he had then by bringing down the other foot effected his object with facility. In those cases of placenta prævia in which the patients had lost much blood, and turning was advisable, he thought the method now proposed, with or without the employment of two fingers internally, as circumstances might indicate, particularly valuable; as in these cases, from reflex action being in them more readily set up, the introduction of the hand into the

uterus was attended with greater risk. Dr. Davis had in a few cases, to obviate turning, tested the practice of detaching the placenta from the cervix; but the hæmorrhage had continued. No fatal result followed, however, as the child was immediately brought down, and acted as a plug upon the bleeding orifices.

Dr. GREENHALGH mentioned a case in which he performed the operation of version by Dr. Hicks's method. He had adopted it at Dr. Barnes's suggestion, who had kindly given his assistance. The operation succeeded very well so far as the turning of the child was concerned, and the circumstances were such that turning by any other method would have been impossible; but the difficulty afterwards experienced in extracting the child—the pelvic inlet being very greatly narrowed—was so great that it was necessary to perform the Cæsarean section.

Dr. BARNES called attention to the extreme value of the paper as tending to advance the cultivation of the hand as an obstetric instrument. The case described by Dr. Greenhalgh was one in which the advantages of Dr. Hicks's method of turning were most remarkably illustrated. The pelvis was so contracted that it was simply impossible to do more than squeeze the two fingers in between the tumour and the symphysis pubis; yet the turning was fairly accomplished, although for want of space it was still impossible to grasp the foot which had been brought down. He (Dr. Barnes) had performed the operation of turning about a hundred and ten times during the last five years, and he might say that in almost every instance he had derived more or less assistance from the adoption of the principle of this method. That principle consisted simply in acting upon the two poles of the long diameter of the fœtus at the same time. Just as in the case of a Chinese ball contained within another, if you pressed upon one point only, the inner ball would not revolve; but if you pressed upon opposite poles in opposite directions at the same time, the ball would revolve easily; so it was with the fœtus *in utero*. The general application of this principle in turning had been developed in his practice gradually as difficulties arose. He had first been led by Dr. Simpson's recommendation to use the right hand externally to support the uterus, and then he was not long in discovering that the hand outside might often be made more useful in effecting version than even the left hand inside. Thus he had for some years put in practical operation the bimanual method, and had frequently turned without introducing more than two fingers into the uterus. But he was glad to acknowledge that he had not fully grasped the principle of the operation, nor carried it into practice with entire comprehension and accuracy, until after reading Dr. Hicks's excellent description. It was right to refer to the history of this operation in reference to the researches of others. In 1807, Wigand published an admirable memoir, in which he fully described the principle and method of turning by internal and external manipulations. But this memoir had been unaccountably neglected. Although his name was quoted, what he had written appeared to have produced little or no effect upon practice. One secret of success lay in obtaining an accurate idea of the position of the fœtus; and there was no true transverse presentation such as was figured in many text-books. In all these cases the fœtus lay obliquely in reference to the pelvic brim; the head was never far remote from the os uteri, the breech was elevated to a higher level than the head, and the knees were generally near the lower segment of the uterus—not far to seek; so that by pushing the shoulder and head on one side, whilst the external hand pressed down the breech, the fingers passed through the cervix might easily seize one or other of them. There was one point in the operation which he did not think Dr. Hicks had described with sufficient care. As soon as the knee was seized, the mode of assisting by

the external hand must be changed; at this stage the right hand should be brought down so as to receive the head in the palm, which should then be pressed upwards away from the brim and iliac fossa, whilst gentle traction should be exerted upon the limb grasped by the left hand. He had sometimes even been enabled by this manoeuvre to elevate the head and shoulder from the brim in cases of extreme difficulty, so as to give space for the introduction of the hand, which was otherwise impossible. The obstacles which he had found the most difficult to deal with arose in certain cases of dead children where decomposition had advanced so far as to destroy all elasticity and resiliency in the fetal spine. To effect evolution by acting upon one or other or both poles of the long diameter of the child, it was essential that that long diameter—represented by the spine—should preserve a certain degree of rigidity or elasticity; otherwise, when traction was exerted upon a limb, the only effect was to compress the fœtus into a mass which moulded itself to the resisting structures. Another difficulty arose in cases of premature labour, partly from the small undeveloped condition of the uterus which impeded manipulation, and partly from the want of rigidity of the fœtus, which led to its being compressed by the spasmodic contraction of the uterus into a compact ball. With regard to the use of this method of turning in placenta prævia, he fully recognised its merit. Although insisting upon the advantage of the principles of treating placenta prævia which he himself had introduced, he was always ready to avail himself, according to the necessity of the case, of other aids. The total detachment of the placenta was not true to physiology—it was bad in practice and quite superfluous; but the partial or cervical detachment was indicated, if for no other reason, to liberate the cervix and facilitate its dilatation, and therefore turning. He fully recognised the value of chloroform; but unless full surgical anaesthesia were induced, it sometimes rather obstructed than facilitated turning. With regard to the objection that the bimanual method was liable to cause metritis, he could only imagine that this arose from an utter misconception of the nature of the operation. It was only necessary to pass two fingers into the uterus, and the operation was accomplished with less force than by the old method. So easy was it at times, that he had on one occasion, in a case of placenta prævia, turned and delivered a child without passing more than two fingers into the vagina.

Dr. GRAYLY HEWITT believed that all who had heard the paper now read would, however strongly prejudiced in favour of the older method of turning, have recourse to the bimanual method when suitable cases presented themselves. He was unable to speak as to the value of the operation from personal observation. In all cases of turning, he had himself made very free use of the second hand externally, to steady the uterus, and so facilitate the operation, but he had not practised the "bimanual operation" in its entirety. It was undoubtedly a great object to do without the introduction of the entire hand into the uterus, but he would at the same time remark, as, indeed, the author had stated in his paper, that the risk attendant on introduction of the hand into the uterus had been very much over-estimated. He had frequently so introduced the hand, and had never seen the slightest injurious results. There was a point in reference to the operation of turning to which he would take occasion to allude—viz., the necessity for bringing down both feet; otherwise, as he had found by experience, great difficulty was liable to be encountered at a further stage of the delivery. In one case—that of a patient of St. Mary's Hospital Maternity, which he had attended, the difficulty in question was particularly observed, and he now made it a rule to secure both feet at first. The method of turning recommended by Dr. Hicks would be found most difficult of execution, as Dr.

Hicks had stated, in cases of cross-birth where the arm presented and the uterus was forcibly contracted. In such cases the introduction of the hand into the uterus would be absolutely necessary. He would beg respectfully to express his dissent from the opinion just announced by the chairman as to the use of chloroform in such cases. In a case in which he had been called to assist, one arm and one leg lay in the vagina, and fruitless attempts had been made to complete the turning, the uterus being strongly contracted. In this case the effect of chloroform was most beneficial, allowing the introduction of the hand and the easy completion of the operation.

Dr. Hicks replied to the observations of the several speakers. He did not recommend this measure in every case, but advised that mode to be employed which was most readily applicable to each case. He still, notwithstanding Dr. Barnes's opinion, adhered to what he had stated in the paper concerning its advantages. He had not found the premature age of the fetus any considerable obstacle to delivery. In answer to Dr. Cleveland, he would state that the right hand could be easily used instead of the left, if the patient were placed on the right side.

THREE CASES OF RETROVERSION OF THE UTERUS.

BY ROBERT HARDEY, ESQ., HULL.

The first case was one of retroversion of the uterus, with prolapsus of the vagina, occurring immediately after delivery at the eighth month of utero-gestation. There was also retention of urine. By pressing back the tumour and keeping the bladder empty a cure was effected. In the second case there was retroversion of the gravid uterus about the fourth month, associated with ovarian tumour of the left side. The abnormal position of the uterus was rectified by manipulations, and the patient went to the full term. Unfortunately the patient died fourteen days after labour from strangulation of the intestine, which had become glued by inflammation round the pedicle of the tumour. The third case related was one of retroversion of the uterus with excessive hæmorrhage. The uterus was reduced to its normal position and the ovum extracted, the patient recovering perfectly. The woman thought herself near the end of gestation.

ROYAL MANCHESTER INSTITUTION: MEDICAL SECTION.

WEDNESDAY, NOVEMBER 4TH, 1863.

E. LUND, Esq., in the Chair.

Absence of Iris. The discussion of Dr. SAMELSON's communication on this subject, which appeared in the BRITISH MEDICAL JOURNAL of November 7th, was resumed. Dr. Samelson made some observations on the different forms in which the affection may occur. Mr. JOHN WINDSOR also gave the particulars of two additional cases, both double and congenital. The first was under observation from the age of nine weeks to eleven years, at which latter period she could see well, but was rather short-sighted. Mr. Windsor entered the observation when she was first brought to him (in October 1828), that when light was thrown into the eyes, each presented the appearance of a small red lighted chamber. The other case was similar.

Glaucoma treated by Iridectomy. Mr. THOMAS WINDSOR read notes of a case of acute glaucoma of both eyes. On July 29th, 1863, the patient came to him, having been treated for thirteen days unsuccessfully by leeching, salivation, free purgation, etc. He had noticed nothing the matter with his eyes till three days before this was commenced. There was well marked glaucoma on both sides; the aqueous humour was turbid; the pupils rather dilated and fixed; the vitreous body turbid; the tension

of the globe was much increased. The qualitative perception of light was abolished; the quantitative was moderately good. Iridectomy was at once performed on the inner side of each eye.

July 30th. He passed a good night, and could distinguish the divisions of a window. Atropine drops were ordered to be used.

July 31st. He could count fingers at two feet.

August 1st. He counted fingers at eight feet. The right pupil was now well dilated.

August 3rd. He could make out No. 20 with the right eye at fourteen inches with + 12.

August 21st. With + 8 the right eye read No. 12; the left No. 15.

October 13th. With + 6 he read with some difficulty No. 10, and a few words of No. 9.

Acute Epiglottitis. Mr. JOHN WINDSOR detailed an interesting case of this disease. The patient, a male, aged 35, seen first on Aug. 21, 1863, had almost complete obstruction to swallowing, coming on for two days previously. The voice was whispering. There was no cough or febrile action. The fauces appeared almost normal; but, on examination with the finger, the epiglottis could be felt as a hard solid ball, filling up the lower end of the pharynx. He was ordered to have three grains of calomel placed on the tongue every three hours. In the afternoon, the symptoms being as urgent, the swelling was punctured in two or three places by a long needle flattened at the point and guided by the fingers, and again in the evening, with slight feeling of relief each time.

August 22nd. He was much the same. The tumour was punctured again, and bled rather more freely. He swallowed a few teaspoonfuls of beef-tea.

August 23rd. He could speak a little better. He swallowed half a cupful of beef-tea. The scarification was repeated.

August 24th. Some salivation having occurred, the calomel was omitted.

August 27th. He was better; he passed a semisolid substance of the size of a filbert. He spoke clearly. He was scarified each day at his own request. Iodide of potash with gentian was ordered.

August 30th. The epiglottis was of nearly its natural size. He swallowed some bread and butter. He expectorated a good deal of muco-sanguineous matter.

September 18th. He was now quite well.

Mr. Windsor remarked that he considered the success in this case was mainly due to the frequent puncturing. The swelling was undoubtedly confined chiefly to the upper surface of the epiglottis, owing to the looser adherence of its mucous covering. He said that such cases, uncomplicated with inflammation of the neighbouring parts, were rare. He had only, after careful inquiry, been able to meet with notices of two cases by Burne, in the *Medical Gazette* for May 1830; two cases by Kesteven, in the *Medical Gazette* for 1849; three cases by Sir H. Marsh, in the *Dublin Medical Journal*, vol. xiii; one case by Mainwaring, in *Medical Facts and Observations* for 1791, vol. i; three cases in the third volume of *Transactions of a Society for the Improvement of Medical Science* (1808); three cases by Professor Lærsen, in *Schmidt's Jahrbücher* for 1852; and a short notice of the subject, chiefly referring to British authorities, in *Wunderlich's Handbuch* (1856). In nearly all of these cases, most heroic antiphlogistic treatment was had recourse to. Lærsen, however, had made use of free scarification. Only one of the cases referred to died; though in most of them there appeared to be imminent danger.

Dr. G. F. FORBES has been set apart for the duty of continuing experiments with New Orleans seed in Dharwar, and superintending the cotton gin factory there.

Correspondence.

IRIDECTOMY.

LETTER FROM CHARLES TAYLOR, M.D.

SIR,—Your endeavour to elicit the truth regarding the operation of iridectomy in glaucoma and some other diseases of the eye deserves commendation. It is, nevertheless, to be regretted that the general tenour of your remarks and that of some others should, as it appears to me, be unreasonably prejudiced against an operation, to the timely performance of which there is no doubt thousands in this country and abroad owe useful vision. Iridectomy is indicated in cases of general inflammation of the eyeball, characterised by increased intraocular pressure and consequent more or less stony hardness of the globe. Under this head may be included acute inflammatory and chronic glaucoma, with obstinate recurrent cases of iritis accompanied by more or less inflammatory implication of the choroid.

Acute glaucoma is characterised by excessive constitutional sympathy, with the phenomena of marked irritation. The conjunctiva is of a deep red colour; scalding tears course down the cheek. There are extreme photophobia followed by dilated pupil, most intense pain, and rapid loss of transparency of the vitreous body. Cases of this description are recorded where vision has been totally lost on the day following the commencement of the attack.

Inflammatory glaucoma is characterised by repeated attacks of deep seated inflammation, which resists all medical treatment, and is accompanied by diffuse exudations into the vitreous and aqueous humours. The patient complains at first of rapid recession of the near point. Photophobia is then developed; flashes of light and floating sparks are seen before the eyes; a halo surrounds the candle; and the sufferer is alarmed by periodical obscurations, etc.; the eyeball then becomes hard and painful to the touch; the pupil becomes permanently dilated; and, after a time, æsthesia of the cornea is noted, with a deep seated aching pain in the supraorbital region. The patient may or may not continue in this condition for a considerable period (years even); but, in either case, symptoms of increased intraocular pressure are ultimately developed, and blindness, occasioned by compression of the retina and optic nerve is the result. In the progress of the case, the vitreous humour becomes opaque; but if the ophthalmoscope be used before this stage, the phenomena of increased pressure may be observed in pulsation of the arteries, with cupping of the optic papilla, also evidenced by alteration of the normal curve of the cornea and consequent astigmatism, diminution of the anterior chamber, and distortion of the iris. The gradual destruction of the function of the retina from pressure is plainly indicated by the progressive limitation of the lateral field of vision.

Chronic glaucoma is more insidious than the preceding; but is characterised by much the same symptoms. Recession of the near point first attracts the patient's attention, by necessitating a frequent change of glasses. Periodical obscurations, rainbows round the candle, diminution of lateral range of vision, with astigmatism, are then noticed; and on examination we find evidence of pressure from pulsation of the arteries and increased tension of the globe. Ultimately, the iris becomes altered in structure; and sight is lost from the same cause and with much the same symptoms as in the preceding case.

It will have been observed that haziness, hardness, and dilated pupil, are the three characteristics of glaucoma, in addition to which, as a disease remediable by

iridectomy, I must notice those obstinate cases of recurrent iritis with which every ophthalmic surgeon is but too well acquainted.

These cases, which are complicated by implication of the choroid, seem to resist all treatment, and end ultimately in alteration of the tissue of the iris, complete synechia, occlusion of the pupil by exudation, with diminution of the anterior chamber, and at last, in many cases, more or less opacity of the lens, with complete loss of vision.

Increased tension of the globe, with considerable pain, accompanies this state of things; and we not unfrequently have to deplore serious injury to the fellow eye from sympathetic irritation.

It is established, that all these cases characterised by intraocular pressure are instantly relieved, the chain of morbid action broken, and normal tension permanently restored, by the operation of iridectomy; nor does it appear to me very difficult to understand how this should happen. In the first place, a free opening is made into the bulb, the ciliary muscle is incised, and tension is immediately relieved by the evacuation of the aqueous humour; which, with a part of the vitreous humour and diffuse inflammatory products, at once escapes. A greater or less portion of the contents of the globe is then removed by excision of the iris. A free communication between the anterior and posterior chambers is permanently established.* Morbid products behind the uncut iris are thus set free;† and the full bleeding, which always accompanies these cases so long as the iris is sound, at once drains the engorged vessels of the choroid, and relieves the retina of pressure from behind.

To say that such cases recover as well without iridectomy as with it, is bare assertion certainly not borne out by facts. In truth, practical men know that they do not recover; and it would be easy for me now to point out several cases where the eye has perished beyond hope from neglect of this operation, and where iridectomy is even now urgently demanded for the relief of pain.

The benefits of iridectomy being so marked and palpable, surgeons would not be warranted in neglecting the operation, even were the risks attending it very great; but, in fact, this operation, when successfully performed, appears to be singularly safe; indeed, I do not know anything in ophthalmic surgery that has surprised and pleased me more than to notice the slight disturbance which usually follows a procedure apparently so grave. I have tested this operation as a preliminary to extraction in five cases of cataract (the eye being quiescent and of normal tension), where actual disease of the eyeball itself, extreme tenuity of the cornea, great age, debility, or constitutional dyscrasia, on the part of the patient, left me little hope that the ordinary operation would succeed. Four of these patients did well, as far as the subsequent extraction was concerned; and I have not yet operated on the fifth. All seemed to make light of the iridectomy (performed without chloroform); one walked home some distance immediately after the operation, and went about her ordinary household work; the others resumed their usual avocations on the following day. Of course, the above observations only apply to iridectomies successfully performed. When this is not the case, various grave accidents may occur, wounding the lens, and consequent formation of cataract, being the principal; of which accident, I have already seen three instances.

I shall reserve the *rationale* of iridectomy in securing

* As certainly as an iritis that closes the pupillary opening exercises a destructive influence on the cornea and other tissues of the eyeball, so certainly on the other hand that influence ceases as soon as a free communication between the anterior and posterior chambers is established. (Moreen.)

† It has been suggested that the collection of morbid products behind the uncut iris irritates the ciliary processes, and produces a condition that, by rapid extension to Schlemm's canal, excites phlebitis, on which the subsequent destruction depends.

the success of subsequent extraction for a future communication, merely observing now that it presents nothing in the least analogous to its *modus operandi* in glaucoma and other inflammatory affections of the eyeball. With regard to the permanent effects of the operation, I may mention that when the iridectomy is made superior, the colotoma iridis is completely concealed by the upper lid, no deformity is occasioned, and vision does not appear to be impaired, patients after subsequent extraction reading No. 1 with ease.

Having thus indicated in what cases the operation is required—having endeavoured to explain its *modus operandi*, and to prove how little danger to sight attends on iridectomy *per se*—I cannot now do better than conclude in the words of Professor Donders of Utrecht:—"Humanity demands that prejudice and ignorance should cease to oppose the introduction of iridectomy for the cure of glaucoma."

I am, etc.,

CHARLES TAYLOR,

House-Surgeon Nottingham Eye Dispensary.

Mansfield Road, Nottingham, Nov. 16th, 1863.

SIR,—Permit me to say a few words in reply to Mr. Bowman's obliging answer to the question I put to him. I am sure I wish in no way to exaggerate any statement; and sincerely trust that, in so far as the iridectomy subject is discussed, it may be done with perfect calmness. From all I know of Mr. Bowman, I believe that he is the very last man in the world who would deprecate the free discussion of any unsettled point in surgery. Fair discussion can only lead to what all of us desire; viz., the truth. I do not, then, think I exaggerated when I said that we ought, in the days previous to iridectomy, to have met with glaucomatous blind at every corner of the street, if, as is now stated by iridectomists, iridectomy is the sole and only cure for the disease which eventuates in complete glaucoma, unless iridectomy be performed. No greater proof of the frequency of the disease which requires iridectomy can be given than the fact of the numbers of operations which are reported in the journals. Mr. Bowman forgets that, before the days of iridectomy, there must, if his doctrine be true, have been years of accumulations of blind glaucomatous. Every year, or rather every week and day, must then have added to the number of blind, because the operation which, as we are assured, can alone effect the cure of the disease, was unknown and unpractised. I must again ask the question, therefore, How comes it that, before the days of iridectomy, glaucoma was comparatively so rare a disease?

I am, etc., A SURGEON.

LETTER FROM HAYNES WALTON, ESQ.

SIR,—I beg to acknowledge the receipt of your note, in which you ask me "to give the profession the benefit of my great experience respecting iridectomy." I do agree with you in the remark "that the subject is deserving of serious consideration, as the opinion, and I conclude the practice, of surgeons, differ so materially, in reference to the treatment for which it is asserted that iridectomy is needed."

I had almost decided to be silent during the present question, as I have discussed the subject in a separate chapter in the last edition of my work on the Surgical Diseases of the Eye; but I accept your invitation, because perhaps now I have more knowledge, and because my example might possibly induce surgeons who have not yet spoken, to record their opinions.

I may say at once, that I have not been able to discover that the removal of a piece of the iris has ever exercised the slightest influence over any inflammatory condition of the eyeball, nor over the disease called glaucoma, while the operation always, more or less, damages the eye. I may add that, several surgeons at-

tached to eye hospitals and infirmaries, assure me that their experience is the same. I do not include among them any of my colleagues.

But I must not be satisfied with a mere assertion. I intend to send you a statement of my views in a practical paper, so soon as I can find time to settle to the work; at present I am very busy. I am, however, determined not to enter into any controversy, but merely to say what I think, and cease.

I am, etc.,

HAYNES WALTON.

69, Brook Street, Hanover Square, November 30th, 1863.

SUSCEPTIBILITY TO DISEASE.

LETTER FROM GEORGE F. GILES, M.D.

SIR,—The unusual susceptibility to the reception of disease, more especially fever, during the last few years, must have been sufficiently evident to have attracted the notice of the profession generally; and perhaps some may have been struck with the anomalous character of some fevers falling under their observation. Diseases which usually attack but once, or in the event of a second attack a long interval has occurred between them, have appeared in rapid succession. Vaccination, which after the first successful performance of the operation had been repeated occasionally without any effect, has, when undertaken of late, frequently produced considerable annoyance and sometimes serious consequences. I have now under treatment a woman 40 years of age with small-pox; her arm bears the mark of successful vaccination performed in early life; she was re-vaccinated about five years ago without producing any results.

The following two cases are instructive in illustrating the above remarks:—

W. C., aged 12, at a boarding school with about forty other boys, was attacked with slight sore-throat, a pink look in the conjunctiva, and a red tongue with elongated papillæ. I advised his removal to a remote part of the house and the cutting off of all communication between him and the other boys. The following day he was allowed to come down stairs, as he appeared well. I still advised caution and isolation. The third day he said he was perfectly well, and before I saw him he had mixed with his schoolfellows. A few days afterwards he went home for the Michaelmas holidays. During his absence about twenty boys were attacked with scarlet fever. On returning to school, he again took the disease and died. It proved that the first slight attack, though sufficient to infect nearly the whole school, was no safeguard either as to receiving the disease a second time, or in modifying its severity.

W. F., aged 3, was suffering from general anasarca and albuminuria. The tongue was red, with elongated papillæ. I pronounced the child to have lately had scarlet fever. This was denied; but the mother admitted that about a fortnight before the boy had complained of slight sore-throat. Under a treatment of a daily warm bath and citrate of potash and citrate of iron, the child improved. He was removed to the country. On the day of leaving, the mother was seized with scarlet fever, and had a severe attack. Two children of another family left in the house were taken immediately afterwards, one of whom died. At the end of a fortnight, the mother and child returned; the boy almost immediately again had the disease, well-marked on this occasion; he again had albuminuria and dropsy, and again recovered.

I have not thought it necessary to go into details of these cases; my object being merely to endeavour to show, that so great is the disposition in the human family (it may go beyond it for ought I know) to receive disease, especially fever, at the present time, that a slight attack received only a few weeks previously does not lessen the liability to a second, on returning to a house with what I would call a concentrated infection.

I considered the present an opportune moment for forwarding you these two cases as bearing to some extent upon your late article of "Foul Air and Fevers."

I may here add, that so unsatisfactory have my humble individual efforts proved to discover causes for the various kinds of fevers that I have seen in my own practice during the last two or three years, that I have almost given up seeking them, and I have been satisfied that there exists now, and has existed for some time past, an unusual disposition to receive disease and I cannot tell why.

I would ask the cause of the sudden and deadly attack of influenza about the year 1836? of the cause of the cholera attack in 1849? of diphtheria for the last five or six years? A scientific explanation of course would be of immense advantage; but if we look to a knowledge of cause as a means of cure, I am afraid we are doomed to disappointment, for, so long as these apparently cyclical bearings of disease still go on, we shall only lose some to find others. Sanitary laws and regulations will doubtless greatly modify the mortality of these grave visitors, but I fear nothing will entirely check their approach.

I am, etc.,

GEORGE F. GILES.

Victoria Park Road, Hackney, N.E., November 5th, 1863.

EFFECTS OF DISEASED MEAT.

LETTER FROM RICHARD W. MARTYN, ESQ.

SIR,—I have lived more than forty years in this parish, which is chiefly agricultural; and during that time I have constantly observed and known farmers, whose cattle (chiefly beef and mutton) have been affected with various diseases and sometimes injured by accidents, to kill such animals and sell the meat at a low rate to their workmen and others. I have never known any illness or disease caused by eating the flesh of such animals, and were it not for the means of procuring animal food to which I have referred, the great majority of the labouring class would seldom taste it. If a bullock in good condition, suddenly attacked, say with peripneumonia, be immediately killed, I do not think the carcase much impaired. I am certain that it is not injurious to health if the animal have not been suffering long from the disease and have not been drenched and physicked. From experience, I know it is the wisest plan to kill the animal at once; for, if it recover it will be so reduced that it will not pay for the trouble and expense of keeping it. As the country from this place to Bridgwater and Taunton is often under water, our sheep are very liable to be diseased. The liver becomes affected with hydatids; and the vessels are filled with flukes. These sheep will often get fat; and although the mutton is certainly inferior, as it wants juiciness and flavour, yet to destroy this quantity of food would be a public calamity and perfect ruin to hundreds of farmers. There is another disease chiefly affecting hog-sheep or sheep one year old: this is giddiness, and arises from water on the brain. The animal had better be killed at once, as it never recovers, although I have known them live until the brain is nearly absorbed and the animal gets quite blind. If in good condition and killed early, the carcase is not much impaired, and certainly not injurious to health.

I think it would be a great public calamity if Mr. Gamgee's and the public inspectors' opinions were to be enforced, and nothing but prime fed animals allowed to be used as food: but sellers, I think, ought to be prosecuted for selling inferior meat for sound, which they often do and charge the highest prices for it.

Like most medical men living in the country, I do a little in grazing, and have for many years studied the diseases of cattle.

I am, etc., RICHARD W. MARTYN.

Marlock, Somerset, Nov. 11, 1863.

Medical News.

ROYAL COLLEGE OF SURGEONS. The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on Nov. 19th:—

Bell, Hutchinson R., Endsleigh Street, Tavistock Square
Boulton, Albert Edward, Hornacast
Efreuch, Thomas Edward Digby, Galway
Fulton, John, M.D., Canada
Hawthorn, Frederic John, Uttoxeter, Staffordshire
Julius, George Frederic, Richmond
Leach, Matthew, Wisbech
Libbey, Henry Cornelius, Fulneck, near Leeds
McNair, Frederic, London
Mosely, Isaiah A., Newcastle
O'Flynn, Andrew, Sligo
Rogers, William Richard, Oxford
Shuldham, Edward Barton, Cheltenham
Smith, Cleveland, Horslydown
Smith, Henry F., M.B., Cornwall Terrace, Regent's Park
Stott, Thomas Lilley, Holloway
Trenerry, Charles James, Gibraltar
Von Stieglitz, Lewis Frederick, Tasmania
Weller, George, Mile End Road
Whipple, Connell, Plymouth

Admitted on November 20th:—

Atkinson, James, Hyde, near Manchester
Baetcke, Emil Julius, M.D., Finsbury Square
Bligh, Alexander Murray, Liverpool
Cooke, Richard Edward, Southwell, Notts
Diver, Ebenezer, M.D., Yately, Hants
Fuller, James, Rectory Place, Woolwich
Gwyther, James, M.B., Manchester
Hayden, William G., High Wycombe
Hedley, William Snowdon, M.D., Alnwick, Northumberland
Leith, Ralph James Forbes, Mintlaw, Aberdeenshire
Lichtenberg, Philipp J. L., M.D., Finsbury Square
Nash, Frederic, Royston
Ryder, Francis James, Greenwich
Senior, Augustus Reeves, Richmond
Vipan, William Henry, Ely, Cambridgeshire
Watermeyer, William Godfrey, Cape of Hope

Naval Surgeons. The following members of the London College of Surgeons passed their examinations for full Surgeons in the Royal Navy, at a meeting of the Court of Examiners, on November 19.

Kipling, Thomas, H.M.S. *Canopus*; diploma of membership dated April 15, 1859
Skene, James Alexander, H.M.S. *Cumberland*; May 19, 1856
Warren, Thomas Roberts, Plymouth Division of Royal Marines; December 15, 1852

UNIVERSITY OF CAMBRIDGE. Degrees of Master in Surgery conferred November 26th, 1863.

Burd, Edward, Caius College
Graham, Arthur Robert, St. Peter's College

APOTHECARIES' HALL. On November 26th, the following Licentiates were admitted:—

Everitt, Herbert, University College
Forde, W. B., Queenstown
Milner, J. F., Hull
Seabrook, W. M., Brighton
Ward, C., Tollerton, Nottinghamshire
Miller, R. F., Barnstable

APPOINTMENTS.

*BLACK, C., M.D., elected Mayor of Chesterfield.
BOARD, Edward C., Esq., elected House-Surgeon to the Bristol Royal Infirmary.
COOPER, Herbert, Esq., elected Assistant House-Surgeon to the Bristol Royal Infirmary.
CROFT, John, Esq., appointed Assistant-Surgeon to St. Thomas's Hospital.
HALL, Cornelius S., Esq., appointed Certifying Factory Surgeon, Carlisle.
HORGOP, T., Esq., elected Mayor of Chipping Norton.
MAIN, William, M.D., appointed House-Surgeon to the Alnwick Infirmary.
*MORGAN, W. W., M.D., elected Mayor of Newport, Monmouthshire.
NELSON, Samuel C., M.D., appointed Surgeon to Her Majesty's Household.
O'CONNOR, M. J., L.R.C.P.Ed., elected Mayor of Morpeth.
Sisson, Richard S., M.D., appointed Physician to the Royal General Dispensary, Bartholomew Close.

*TURNER, A. F., M.D., elected Mayor of Denbigh.
WALSHE, R., L.R.C.P.Ed., appointed Surgeon to the Carlisle Fever Hospital.
WILLIS, G., M.D., elected Mayor of Nonmouth.

POOR-LAW MEDICAL SERVICE.

BLACKFORD, John C., Esq., to the Cannock District of the Penkridge Union, Staffordshire.
CARSON, Alexander T., M.D., to the Articlave Dispensary District of the Coleraine Union.
COCKS, Benjamin, L.R.C.P.Edin., to the South-East District of the Buntingford Union, Herts.
CORREY, Kate, Esq., to the Stamford District of the Orsett Union, Essex.
FENDICK, Robert, Esq., to District No. 2 of the Bristol Corporation for the Poor.
FRASER, Wm., Esq., to the Parish of Old Machar, Aberdeenshire.
HOOD, William, Esq., to District No. 2 of the York Union.
JAMES, Joshua, Esq., to District No. 3 of the Bristol Corporation for the Poor.
MC CARTHY, Joseph M., M.D., to the Tobarcurry Dispensary District and the Workhouse of the Tobarcurry Union, co. Sligo.
MILES, Thomas, Esq., to the Stoke Gabriel and Dartington and Battery Districts of the Totnes Union.
PARSONS, Frederick J., L.R.C.P.Edin., to the Second District of the Yeovil Union.
SOFER, William E., L.F.P. and S., Glasg., to District No. 4 of the Guilford Union, Norfolk.
TURNER, John S., Esq., to District No. 5 of the Mansfield Union, Nottinghamshire.
WALTER, Walter W., Esq., to the Sixth District of the Yeovil Union.
WARRINGTON, Edward, Esq., to the New Workhouse of the Pateley Bridge Union, Yorkshire.

ARMY.

IRWIN, Assistant-Surg. C. G., M.D., 28th Foot, to be Staff-Surgeon.
WOOD, Staff-Assistant-Surgeon T., M.D., to be Assistant-Surgeon 45th Foot, *vice* R. Atkinson.

To be Staff-Assistant-Surgeon:—

ATKINSON, Assistant-Surgeon R., 45th Foot.

INDIAN ARMY.

ROSE, Surgeon J., Bengal Army, to be Surgeon-Major.

ROYAL NAVY.

EVANS, Richard, Esq., Surgeon, to the *Rosario*.
JOHNSON, W., Esq., Assistant-Surgeon, to the *Impregnable*.
KRENNAN, C., Esq., Assistant-Surgeon, to Haslar Hospital.
KELLY, A. H., Esq., Assistant-Surgeon (additional), to the *Fisgard*.
WILLIAMS, Charles, Esq., Assistant-Surgeon, to the *Cambridge*.

VOLUNTEERS. (A.V.=Artillery Volunteers; R.V.=Rifle Volunteers):—

ALDERSEY, W. H., Esq., to be Assistant-Surgeon 1st Surrey A.V.
HELM, G. F., Esq., to be Surgeon 3rd Cambridgeshire R.V.
MARSH, N. K., Esq., to be Assistant-Surgeon 1st Administrative Brigade Lancashire A.V.

To be Honorary Assistant-Surgeons:—

DICKSON, J., Esq., 95th Lanarkshire R.V.
GLIFFAN, W. H., Esq., 3rd Oxfordshire R.V.

DEATHS.

ALEXANDER, James, M.R.C.P.Ed., at Wooler, Northumberland, aged 56, on November 25th.
AXFORD, Henry, Esq., Surgeon, at Bridgwater, aged 83, on Nov. 23.
BRKETT, On December 1st, at Northumberland House, Stoke Newington, aged 11 months, Rosa, youngest daughter of G. Birken, M.D.
BRAMAN, George H., Esq., Surgeon, late of Henrietta Street, Covent Garden, at Hammersmith, aged 39, on November 29.
CASWELL, On November 25th, at Peckham, aged 90, Mary, widow of the late John Caswall, Esq., Surgeon, of Alvescott, Oxfordshire.
COX, E. T., Esq., Surgeon, at Birmingham, aged 93, on Nov. 26.
DUNN, On November 29th, at 31, Norfolk Street, Strand, aged 60, Anne Margaret, wife of *Robert Dunn, Esq.
ELLIS, On November 27th, at Crowle, Lincolnshire, of scarlatina, aged 6, Emily Beatrice, youngest daughter of *Henry W. T. Ellis, L.R.C.P.Ed.
KELSON, On November 29th, at Sevenoaks, aged 19, Hamilton Mortimer, sixth son of *George Kelson, Esq.
VIDAL, On November 28th, at Avesley, Essex, aged 2 years and 10 months, Charles L., only son of Wm. F. Vidal, Esq., Surgeon.

DONATION. Dr. Westall has presented to Croydon, the town where he lately resided, a Drinking Fountain.

THE CHARITY COMMISSIONERS have commenced an inquiry into the state, etc., of Bethlehem and Bridewell Hospitals.

THE ROYAL COLLEGE OF VETERINARY SURGEONS intend to propose to the Legislature a Bill, entitled "The Veterinary Medical Act."

THE EDINBURGH MUNICIPAL COUNCIL contains three medical men: Dr. Alexander, Dr. Buchanan, and Mr. Miller.

USURPATION OF TITLES. A Mr. Denton of Clay Cross has been mulcted in the penalty of £5 and costs, for improperly using the title of Licentiate of Medicine.

EDINBURGH SPECULATIVE SOCIETY. Prince Alfred, and Prince William of Hesse, have been elected Members of the Farmers' Speculative Society of Edinburgh.

ROYAL HOSPITAL FOR INCURABLES. This institution has received a legacy of £2000 from the late Joshua Field, Esq.

THE EXTRA-ACADEMICAL SCHOOLS OF EDINBURGH have lost two lecturers; Dr. Murray Thomson, who goes to Roorkie; and Dr. John Struthers, who has gone to Aberdeen as Professor of Anatomy.

RHEUMATISM IN PARIS. The medical returns for the month of October give the most extraordinary increase of rheumatism in Paris. The hospitals are full of patients suffering from what a few years ago was called an "English disease."

HYDROCYANIC ACID. It was found by Dr. Matthiessen, in his investigations in reference to a recent poisoning case, that if 120 minims of prussic acid (*Pharm. Lond.*) containing 2 per cent. of pure acid, be mixed with a pint of fresh porter, the peculiar odour, and taste of the acid are entirely lost.

THE BRITISH PHARMACOPŒIA. The Lords Commissioners of the Treasury who have the power under the Medical Act, of fixing the price per copy of the *British Pharmacopœia*, have determined that the price of the octavo size shall be 10s. 6d., and of the duodecimo size 6s.

INFRINGEMENT OF THE LUNACY ACT. A fine of £25, or two months imprisonment, has been inflicted on Mr. Lawrie of Gilmer House, near Edinburgh, for "detaining, etc., lunatics" contrary to the Lunacy Act. The license of Gilmer House had been withdrawn by the Commissioners some time ago on account of the bad condition of the establishment.

DELETERIOUS EFFECTS OF DISEASED MEAT. The gentlemen appointed to investigate the cause of the spread of pleuropneumonia in Victoria could only discover one instance of diseased meat producing sickness, although cases are not uncommon; but, from the symptoms ceasing on discontinuing the meat, they very seldom come under the notice of medical men. (*Medical Review.*)

LECTURESHIP VACANT. No one need apply. The Council of the University of Melbourne have issued a notice, that a lecturer on surgery is wanted for the academic year 1864-65, and invite communications from gentlemen willing to accept the appointment. It is a pity that any gentleman should waste his time in applying; it has long since been decided who is to fill the post. (*Medical Record.*)

HEALTH OF SCOTLAND. The weather has been very close and moist, and typhus, typhoid fever, and diphtheria, have been prevailing over Scotland. Dundee Royal Infirmary has had two resident physicians cut off by typhus within four months, both being young men of high talent in their profession. One of them, Dr. Glen, who died first, had considerable literary and metaphysical ability and was the gainer, when at Edinburgh University, of Sir Edward Bulwer Lytton's prize for the best essay on "The Influence of the Mind on the Body in Disease." Singularly enough, he was a candidate for the chair of anatomy in the University of St. Andrew's, and had a fair chance of it, but he died on the day of the election. A victim of diphtheria who fell on November 21st, was Mr. George Ross, professor of Scots law in the University of Edinburgh. He was appointed professor two years ago, and was only 48 years of age.

AN ASSOCIATION FOR INTERNATIONAL EDUCATION—originally proposed by M. Eugène Renu, and seconded by Doctor Farr, at the Statistical Congress of Berlin—is about to be established. It is proposed to found a series of colleges in England, France, Germany, Italy, and Spain, the students at which are to move about from university to university, finding always the same standing as that which they held in their last college, and continuing their education only with a change of language. There will be two classes of students, one commercial, the other scientific.

LIGHT WINES. In the eight months ended August 31st last, 6,750,000 gallons of wine were entered for home consumption at the various ports of the United Kingdom; compared with the corresponding months of last year the increase is 172,812 gallons. The produce of Portugal, Spain, and Italy seems most in favour, Spain especially, which has an aggregate larger by 267,944 gallons; while that of South Africa, Holland, and France has a much diminished return, which indicates that the lighter descriptions of wines, as yet introduced, have not received, to the extent anticipated, the public approval.

A POISONER. The *Berbice Gazette* states that an old man in Berbice, known as "Daddy Joe", has on his deathbed confessed to having had a part in an immense number of murders by poisoning, a crime which, there is reason to suspect, is but too common in the colony; almost every piece of bush-land yields the most subtle poisonous plants to those acquainted with them. He also told the place where a great quantity of valuable ornaments were to be found, which had been the hire of his services in these atrocities.

RADCLIFFE INFIRMARY, OXFORD. A special Court of the Governors of the Radcliffe Infirmary was held on the 28th ult., when the Building Committee formally handed over possession of the south wing, which had been erected at a cost of about £6000. The Governors, with ladies and other subscribers, assembled in the new out-patients' hall. The Duke of Marlborough, President of the Institution, occupied the chair, and amongst those present were the Duchess of Marlborough, Lady A. Churchill, the Dean of Christ Church, the Vice-Chancellor, the Warden of All Souls', the Warden of Merton, the Provost of Worcester, the Master of University, the Warden of New College, the Rev. Canon Ogilvie, the Rev. F. Trench, Rev. J. Pullen, Rev. J. Dodd, Rev. O. Ogle, Dr. Acland, etc.

GUY'S HOSPITAL. The following prizes have been awarded. *Third Year's Students: Treasurer's Gold Medals for Clinical Medicine, and for Clinical Surgery, and First Prize (£40),* Edward W. Thurston, Ashford, Kent; *Second Prize (£35),* E. Baxter Formen, Derby;—*Second Year's Students: First Prize (£35),* Henry G. Howse, Reading; *Second Prize (£30),* not awarded. *First Year's Students: First Prize (£30),* Henry Denne, Sandwich; *Second Prize (£25),* James Rawlings, Liskeard; *Third Prize (£10:10),* presented by one of the governors, William A. Brailey, Rochester; *Honorary Certificates,* John Gill, Weston, Hawkstone, Shrewsbury; Henry S. Taylor, Alton; Frederick E. Manby, Rudham.—*Entrance Examination in Classics, Mathematics, etc., October 1863: First Prize,* William B. Giles; *Second Prize,* Frederick Taylor; *Honorary Certificates,* George Rootes, Arthur B. Miott, Matthew O. Coleman.

MEDICAL REFORM. The intention of Dr. Ogle, in his paper read at the Social Science meeting, was to show that the present mode of dealing with members of the medical profession is found to be injurious both to the doctor and the patient, and to propose an arrangement which would be more convenient for both parties. The plan recommended was to dispense with the fee system, and to pay the doctor so much *per annum*, to include all ordinary work, and a fee to be paid for extraordinary

work. Ordinary work was defined to mean periodical visits, attending to the health of the patient, etc.; and extraordinary work was held to be such exceptional services as calls to attend on patients immediately, accidents, and so on. This arrangement, it was considered, would make prevention as well as cure the object of the doctor's care, and assimilate the interests of the physician and patient. (*Social Science Review.*)

A VICTIMISER OF MEDICAL MEN. Charles Dupré, a Prussian, has lately been sentenced to hard labour for nine months for stealing a silver lancet-case and two lancets, value seven shillings, the property of Edward Phillips. The prosecutor is a physician, living in Harley Street, and on the morning of October 30th the prisoner went to the house, and asked to see him. As the prosecutor was then engaged, the prisoner was requested to wait, and was shown into the study. Horsford, one of the constables of the Mendicity Society, had been watching him, saw him leave, and followed him to a pawnbroker's and there saw him offer the silver lancet-case to pledge, giving the name of "Phillips," which was engraved on the case. He told him he should take him into custody for stealing it, when he said it was his own property. Mr. Phillips said there was a gang of fellows going about victimising medical men.

FOREIGN BODY IN AIR TUBES. On November 3rd, a young man was admitted into the hospital at Wolverhampton, suffering from the effects of a threepenny piece, accidentally swallowed on the previous day. While walking along the street, he placed the coin in his mouth. He then commenced running, and suddenly felt the coin glide down his throat, or, as he termed it, "go down the wrong way." The next day he found great difficulty in speaking, owing, as he rightly considered, to the coin having effected a lodgment in his windpipe. It continued to give him great pain, causing him to cough very much, and almost entirely preventing inspiration. In this difficulty he made application at the hospital. An opening was made into the windpipe, and a tube inserted, as it was found that the threepenny piece had nearly stopped up the windpipe altogether. For nearly fifty hours, he breathed through the tube. At the expiration of that time he was then made to hold his head downwards, and, after a sharp shake, the threepenny piece loosened itself from its place of lodgment, and rolled out of his mouth on to the floor. (*Wolverhampton Chronicle.*)

THE MEDICAL ACT. A meeting of metropolitan druggists, was held on the 27th ult., to consider the alterations in the Medical Act as proposed by the General Council, and also to consider "the best means of preventing such unwarrantable interference." Mr. Linden moved, "That the chemists and druggists now present recognise the desirability of giving all possible encouragement to scientific and education qualifications for the trade of chemist and druggist, but they consider themselves, in common with their brethren, quite competent to accomplish all needful reform in their own body, and indignantly repudiate the 56th and 57th sections of the proposed Act of the Medical Council as being unjust in principle, and an unwarrantable attempt to interfere with their rights as independent citizens." Mr. Robertson next moved, "That an Act of Incorporation, based upon existing rights, and subjecting every future candidate for the trade to an educational test, as suggested by the United Society of Chemists and Druggists, is most desirable, and they would urge upon the trade the necessity for a constant and determined effort for its attainment." Mr. Ablett moved, "That the proceedings of this meeting be made known to the Medical Council, with the intimation that the chemists and druggists of this country require to be consulted upon any measure affecting their own interests, and that they will accept of no proposal which does not

recognise the desirability of an incorporation of the entire trade, giving them the right of self-government." The above resolutions were unanimously carried.

DONATION. Mr. Thomas Kerr, of the Grange, Monifeith, has given a donation of £2000 to the Dundee Royal Infirmary. (*Scotsman*.)

FEES FOR MEDICAL ATTENDANCE ON POLICE. The fee allowed by the London Police to a medical practitioner called in by them is 3s. 6d. per day, and 7s. per night visit.

MEDICAL STUDENTS: EDINBURGH UNIVERSITY. The number of medical students matriculated on the 23rd November was 446. Last year the number up to that date was 470. Hence, there is a falling of 24, exactly the number by which the medical students of 1862 fell short of those of 1861. The deficiency, however, is accounted for by the small number of third year's men. There was in 1861, an unusually small entry of first year's students; but during the last two years the number has increased. (*Edinburgh Journal*.)

A FAMILY OF GIANTS. Robert Hales, known as the Norfolk Giant, died of consumption on the 22nd November. Hales was 43 years of age. His father was 6 feet 6 inches in height, and his mother 6 feet. An ancestor of his mother's was said to have been that famous warder of bluff King Hal, who stood 8 feet 4 inches in height. Of such Patagonian parents the progeny were worthy; the boys averaged 6 feet 5 inches each, and the girls 6 feet 3½ inches. Robert was the flower of the flock, and stood 7 feet 6 inches, weighing 452lbs. One of his sisters, with whom he exhibited some years ago, was 7 feet 2 inches, but she died in 1842, being then only 20 years of age. Hales was stout in proportion to his height, though somewhat clumsily put together. When in his prime he was 64 inches round the chest, 62 round the waist, 36 across the shoulders, and 21 round the calf of the leg.

HEALTH OF SCOTLAND. The Registrar-General's monthly report on the eight principal towns of Scotland shows that the deaths last month considerably exceeded the deaths in the October of any year since the commencement of registration, in 1855. The zymotic (epidemic and contagious) class of diseases proved fatal to 850 persons in the eight towns, constituting the very high proportion of 39 per cent. of the deaths. Typhus (including gastric) fever caused 129 deaths, but scarlatina was by far the most fatal epidemic. In Glasgow 22·8 per cent. of all the deaths were from scarlatina, and in Dundee 30·5 per cent. Of the 354 persons carried off by scarlatina only four were adults above twenty. The weather of the month was for the most part rude, boisterous, and inclement, the number of days with rain large beyond example, but the depth of rain fallen not quite equal to the average.

CHEMICAL SOCIETY. At this society, on the 19th, several interesting papers were read. Mr. Riley referred to the existence of the rare metal vanadium in English pig iron. Vanadium has been found hitherto in very few substances, chiefly in vanadate of lead; it has also been detected in a kind of iron ochre and in the French mineral bauxite, which is now so largely employed in the manufacture of aluminium. Vanadium has already received an important application in the manufacture of writing ink. The very finest black ink, perfectly indelible by chemical reagents, or by exposure to the combined influences of air and moisture, is made by adding a minute proportion of vanadic acid to water containing some tincture of nutgalls. The next paper read was by Dr. Frankland and Mr. Baldwin Duppa. It referred to a mode of uniting ethyl, methyl, and amyl with metallic mercury. The compounds produced are of high interest in a scientific point of view. One of them, although a liquid resembling water in appearance, possesses so high

a specific gravity that the heaviest lead-glass floats on its surface. A paper by Dr. Thomson was next read. It consisted in the first part of an extract from elementary works of the properties of sulphuretted hydrogen, and consequently provoked much merriment in an audience composed of the most illustrious chemical authorities of the age. The second part contained a description of an apparatus for producing this gas, devised by Dr. Pisani. A fourth paper was read, on the constitution of certain organic radicles by Mr. Schorlemmer.

THE HUNTERIAN MUSEUM. This collection has just had a very interesting addition made to it by Mr. Henry Christy, F.L.S., of Victoria Street, who has presented a skeleton of the Manatee (*Manatus Australis*), better known to our English sailors as the Sea-Cow and the Woman-Fish, and by the French as the *Bœuf Marin* and *Vache Marine*. There can be little doubt that not a few of the tales of mermaids and mermen have had their origin in the appearance presented by these animals, when seen at a distance with the anterior part of their body out of the water, as the muzzle is thickly set with hairs, and the head is frequently covered with long seaweed, giving it somewhat the effect of human hair. Thus the Portuguese and Spaniards give the Manatee a denomination which signifies Woman-Fish; and the Dutch call it the Little Bearded Man. A very little imagination and a memory for only the marvellous portion of the appearance sufficed doubtless to complete the metamorphosis of this half-woman or man, half-fish, into a siren, a mermaid, or merman, and the wild recital of the voyager and treasured up by such writers as Maillet, Lachesnay-des Bois, Sachs, Valentin, and others, who, as Cuvier well observed, have displayed more learning than judgment. The skeleton in question is nine feet in length.

THE QUEEN AND THE WAKEFIELD CLAYTON HOSPITAL. A report of the recent proceedings in connection with the opening of the Albert Ward at the Wakefield Clayton Hospital has been printed on white satin, and made up in the form of two bannerettes, finished with cords and tassels of royal purple, and, through Sir John Hay, M.P., presented to her Majesty. The following acknowledgment was sent to Sir John Hay: "Whitehall, Nov. 24, 1863.—Sir, I had the honour to lay before the Queen the report of the proceedings at the opening of the 'Prince Albert Ward,' in the Clayton Hospital, at Wakefield, which accompanied your letter to me of the 17th instant; and I have received her Majesty's commands to convey to you the assurance that her Majesty has been deeply touched by the marks of respect and admiration thus shown to the memory of her beloved husband, by the town of Wakefield. I am to add that her Majesty has directed that the reports of the opening of this ward shall be placed with the other documents relative to memorials to the Prince Consort, which are preserved in Windsor Castle.—I have the honour to be, etc.

(Signed) G. GREY."

POPULATION STATISTICS AND METEOROLOGY OF LONDON—NOVEMBER 28, 1863.

[From the Registrar-General's Report.]

	Births. Deaths.	
During week.....	{ Boys..1011 Girls.. 927 }	1908 1412
Average of corresponding weeks 1853-62		1901 1550
Barometer:		
Highest (Th.) 30.212; lowest (Sun.) 29.661; mean, 29.943.		
Thermometer:		
Highest in sun—extremes (Sat.) 75.2 degs.; (Th.) 55.3 degs.		
In shade—highest (Wed.) 57.0 degs.; lowest (Sat.) 35.7 degs.		
Mean—17.9 degrees; difference from mean of 43 yrs.+6.7 deg.		
Range—during week, 21.3 degrees; mean daily, 8.9 degrees.		
Mean humidity of air (saturation=100), 89.		
Mean direction of wind, S.W. & S.E.—Rain in inches, 0.25.		

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.

TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.

WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.

FRIDAY.....Westminster Ophthalmic, 1.30 P.M.

SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Dr. C. H. F. Routh, Lettsomian Lecture "On Midwifery and Diseases of Women."—Epidemiological Society, 8 P.M. "On Epidemic Pleuropneumonia and Phthisis in the Mediterranean Fleet." (Communicated by Dr. Bryson, Inspector-General of Fleets and Hospitals, R.N.)—Geological.—Entomological.—Odontological.—Royal.

TUESDAY. Royal Medical and Chirurgical Society, 8 P.M., Ballot, 8.30 P.M., Mr. Moore "On Popliteal Aneurism"; Mr. Durham, "Treatment of Popliteal Aneurism by Flexion of Knee-Joint."—Zoological.

WEDNESDAY. Society of Arts.—Microscopical.—North London.

THURSDAY. Royal.—Antiquarian.

FRIDAY. Astronomical.

SATURDAY. Royal Botanical.

TO CORRESPONDENTS.

. All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PROPOSED MEMORIAL OF THE LATE PETER MARTIN.—SIR: No one valued more than he Peter Martin a good education; no one delighted more than he to foster those who needed help; and no one surpassed him in his efforts to spread the blessings of the Royal Medical Benevolent College. Could he be appealed to, we doubt not that he would say, "If you desire my name to live, establish a scholarship in the Royal Medical Benevolent College."

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COTTAGE HOSPITALS.—SIR: I have been asked by a lady in this county for information as to the success of Cottage Hospitals, and the steps required for establishing one on a permanent footing. Can any of your readers help me in this matter?

I am, etc., C. L. ROBERTSON, M.D. Cantab.
Sussex Lunatic Asylum, Hayward's Heath, Nov. 25, 1863.

COMMUNICATIONS have been received from:—MR. OLIVER PEMBERTON; MR. LOWNDES; DR. W. H. O. SANKEY; DR. THOMAS BOYCOTT; DR. B. W. RICHARDSON; MR. J. CROFT; DR. JAMES RUSSELL; THE HON. SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY; MR. J. Z. LAURENCE; DR. A. MEADOWS; MR. HAYNES WALTON; DR. BURD; DR. C. TAYLOR; MR. NAPPER; MR. SPENCER WELLS; DR. ELLIS; THE SECRETARY OF THE ODONTOLOGICAL SOCIETY; DR. HUMPHRY; MR. T. S. FLETCHER; THE HONORARY SECRETARIES OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; MR. CARR; and DR. WILLIAM NEWMAN.

BOOKS RECEIVED.

1. The New Zealand Handbook; or, Guide to the Britain of the South. London: 1863.
2. Topics of the Day: Medical, Social, and Scientific. By J. A. Hingeston. London: 1863.
3. The Diseases and Infirmities of Advanced Life. By D. MacLachlan, M.D. London: 1863.
4. The Immediate Treatment of Stricture of the Urethra. By Barnard Holt. London: 1863.
5. Introductory Address. By Henry Lee. London: 1863.
6. A Familiar Epistle to R. J. Walker. By an Old Acquaintance. London: 1863.
7. Seventh Report of the Sanitary Condition of St. Pancras. By T. Hillier, M.D. London: 1863.

ADVERTISEMENTS.

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Abstract of Two Lectures

ON LARYNGEAL DISEASE, AS EXHIBITED BY THE LARYNGOSCOPE.

*Delivered to the Students of the Birmingham
General Hospital.*

BY

JAMES RUSSELL, M.D.,

PHYSICIAN TO THE HOSPITAL.

[Concluded from p. 574.]

I SHALL take leave of this subject by bringing before you briefly the particulars of three or four cases which have occurred under your observation; they will afford illustrations of the remarks I have already made. In all but the first, I shall be content with a summary of their leading features.

CASE I. Warty Growths within the Larynx. (Mr. T. H. Smith.) A case closely resembling the following one, is reported by Dr. Walker of Peterborough in the *Lancet* for 1861. F. W., aged 26, single, gardener. He presented a history of perfectly good health; his habits have been temperate; he has not had syphilis. He used to sing a good deal; but, when about twenty years of age, he observed that he could not reach such high notes as previously; neither could he articulate so distinctly. In the course of some months, he became quite unable to sing. The state of his voice varied somewhat. The voice was better in the morning, and worse at night, or *vice versa*; and a cold always aggravated the defect. Two years after the commencement of his symptoms, he left off malt liquor entirely; and his voice improved.

About three months since, he observed a small swelling just above the thyroid cartilage (probably a purely subjective sensation); and at this time his breathing became affected for the first time. His first intimation of any infirmity in this respect was his discovery that, when holding his head backwards, in the act of pruning his vines, he had a sensation of something falling into his windpipe and hanging there,* attended with difficulty of breathing and cough. On restoring his head to its ordinary attitude, the dyspnoea at once subsided. The same thing happened, though to a less extent, when he held his head down; and occasionally he was awakened from sleep by a sense of choking, attended with cough. He thought this occurred when his head sank back on the pillow. He was relieved immediately by resuming the sitting posture, or by lying with his head high.

On several occasions within the last three months, he coughed up pieces of flesh "like a seedy wart", varying in size from a pin's head to half a pea, and always with relief. He has never had constant cough. He has fallen off much in flesh of late; his appetite has become impaired; and he has had frequent bleedings from the nose. He has also experienced lately difficulty of breathing even whilst sitting at rest. He "seemed to have to use more force in getting his breath than he used to do;" and he had a wearied oppressed feeling at the pit of his stomach. He thought he made a noise in breathing when asleep; but, when he was awake, his respiration was noiseless.

On admission, his appearance supported his assertion that he had emaciated to some degree. He had a dry husky voice, and was unable to raise it to a high pitch,

or to speak with sufficient loudness to be audible at a distance. During quiescent breathing, a faint sound was produced in the region of the larynx; deep breathing was attended with distinct stridor. He seldom coughed; but cough performed voluntarily was very hoarse. He was liable to be awakened in the night by sudden attacks of "strangulation", which on one or two occasions assumed an alarming degree of severity, and even suggested the probability of tracheotomy becoming necessary. He had at times a sense of swelling occurring in his larynx.

By the laryngoscope, a large warty-looking growth (Fig. 2) was seen lying over the aperture of the glottis; it



Fig. 2.

appeared nearly of the size of a small hazel-nut, had a warty surface, and a remarkably jagged border. It was attached by a broad base in front of the larynx, just at the angle, and extended along the anterior portion of the right false vocal cord. It moved freely during respiration, being drawn into the trachea below the glottis during inspiration, and again expelled into the larynx during expiration. During vocalisation, it was embraced by the vocal cords, which closed upon it, and were thereby entirely prevented from approximating.

The growth has been mostly removed, with the exception of the base, which still remains at the anterior angle of the glottis. It was composed simply of the ordinary scaly epithelium of the cuticle, each epithelial cell containing a large nucleus.

Extraction was effected by means of an ordinary pair of curved forceps, directed by the finger previously introduced within the larynx, after this organ had been itself rendered tolerant by the systematic introduction of instruments within its cavity. The plan was proposed to me by our house-surgeon, Mr. Bracey, who was assisting me during an examination. Mr. Bracey at once succeeded in removing a considerable portion from the tumour by a series of successive attempts during the same sitting. My colleague Mr. Bolton subsequently repeated the same operation two or three times, with the fortunate result already mentioned. It was singular to mark the extent to which tolerance was secured on the part of the larynx; but, notwithstanding this fortunate circumstance, the process of extraction necessitated the possession of no small amount of surgical tact.

[Since the above notes were written, the subject of this case has returned, with some renewal of the warty tumour.]

CASE II. Chronic Laryngitis. (Messrs. Hiron and Ure.) J. S., aged 48. February 4th, 1863. He has presented, during the last four winters, symptoms of bronchitis, increasing in severity, accompanied by copious expectoration of opaque white mucus, and dyspnoea. Last winter he also suffered from dysphagia, and some hoarseness from Christmas to March. His cough continued through the whole of last year. In November, his voice again became reduced to a hoarse whisper, and has so continued, with pain and soreness in the region of the larynx. The dyspnoea then became aggravated in paroxysms; and he had to sit up for a short time on first going to bed, from difficulty in drawing his

* The foregoing history was obtained after the patient had been made aware of the nature of his disease: probably the description is rendered more precise by the information he had gained.

breath. He has emaciated on each occasion of the laryngeal complication, and especially during the present one. He has never spat blood.

He has been a great drunkard, often lying about in the street during the night. He is a stoker at gas-works; and, besides being exposed to very sudden and wide alternations of temperature, he is liable to inhale irritating fumes and small dust whilst charging the re-torts. He has twice had gonorrhœa, with a suppurating bubo; but never has presented any evidence of syphilitic infection. His family history is free from traces of consumption.

On admission, he complained of hoarse cough, at times of extreme violence, and then producing retching and straining. The paroxysms of cough occurred chiefly in the morning on rising from bed, but would come on in the night, if he moved in his bed. He expectorated scantily, of grey mucus, streaked with opaque yellow mucus, or small masses of opaque mucus floating in glairy fluid. He had pain in the throat and choking during deglutition. His voice was depressed in pitch, feeble, and whispering, and, when he was excited, decidedly rough. Ordinary breathing was noiseless, but effected with preternatural effort; deep inspiration was attended with distinct laryngeal stridor. He was much emaciated. Physical examination yielded negative results as regarded the lungs, excepting the presence of dry râles. The sounds of the heart were exceedingly feeble.

The cartilages of the larynx were healthy. The epiglottis was everted and very erect, and its under surface was exposed. The arytenoid cartilages were permanently approximated, and exhibited none of their usual movements. (Fig. 3) The glottis was permanently closed

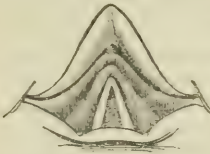


Fig. 3.

in a considerable degree, only a narrow triangular chink separating the vocal cords. The posterior edge of the opening of the larynx was much thickened by swelling of the mucous membrane; and from the same cause the interior of the larynx was much reduced in capacity; its cavity resembled a broad funnel, at the bottom of which was the nearly closed glottis. The mucous membrane was of a bright red colour, and was bathed in puriform secretion; white strings of mucus stretching across the cavity. The membrane covering the false vocal cords projected in broad folds, partially concealing the true vocal cords, which preserved their natural whiteness; but the left cord presented a superficial ulceration.

CASE III. Chronic Laryngitis. J. S., aged 18, single, baker. April 25th, 1863. He has been exposed to sudden and considerable alternations of temperature in the course of his business, and to the inhalation of dust. He has never had syphilis.

Symptoms of laryngitis first developed themselves fifteen weeks ago, in consequence of the operation of cold. They were confined to slight dysphagia, with hoarseness. The hoarseness increased slowly; but varied remarkably in degree. It affected chiefly medium tones. He used to possess a good tenor voice; but has been quite disabled from singing by his complaint.

In the course of a month or six weeks, he began to experience some dyspnoea; and on the 9th of last March suffered sudden aggravation of his malady, with much difficulty in breathing, amounting to gasping. It was relieved by treatment, and respiration again became tranquil. Cough has never been a prominent symptom; and

appears to have consisted simply in a voluntary effort to relieve a sense of uneasiness in his larynx. He has not expectorated. His health has been impaired, and he is now emaciating. His disease has been prolonged by the necessity of following his business. His habits have been perfectly temperate.

I found his voice feeble and very rough, but subject to great variation in this particular. On deep inspiration, loud laryngeal stridor was produced; and he stated that if he hurried himself, he became like a broken-winded horse. During sleep, his respiration was so noisy as to disturb those who occupied the same room.

It was not easy to obtain a satisfactory view of the interior of his larynx, owing to the very prone attitude of the epiglottis; I, however, succeeded, by desiring the patient to sound a high-pitched E, following the sound immediately by a deep breath. I then found the arytenoid cartilages permanently approximated; the mucous membrane of the larynx was much thickened, and projected into the interior below the insertion of the arytenoid cartilages as a thick rim. (Fig. 4.) The pos-

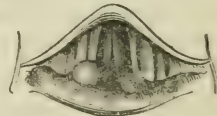


Fig. 4.

terior margin of the larynx was massive and rounded, especially over the apices of the arytenoid cartilages, where the mucous membrane formed large rounded prominences. At the lowest part of the laryngeal cavity there lay, from front to back, a prominence which had just the appearance of the kernel of a plum-stone, occasioned by great thickening of the mucous membrane covering the upper vocal cords. During inspiration, each half of this body separated from the other to about one-eighth of an inch; not sufficiently, however, to afford a view of the true cords, until the swelling was reduced at a later period of the case; the true cords were then seen to present their normal aspect. The mucous membrane had its natural colour, and was free from secretion.

CASE IV. Chronic Laryngitis. E. H., aged 37, married. She has been much exposed to damp, and to alternations of heat and cold in brewing, as she keeps a public-house, and brews herself. Her habits are stated to be perfectly temperate, and her appearance fully confirmed the truth of her statement. She has never had syphilis. She has been subject to symptoms of bronchitis for four or five years; her health failed; and she emaciated more than once. She has been losing her voice gradually for some months, without any change having been apparent in her cough, and without dyspnoea; she had, however, some "choking" on going to bed. Speaking distressed her, and increased the cough, and she avoided it as much as possible. She had to draw in her breath very frequently whilst speaking; her voice was always worse when she rose from bed.

We found her voice feeble and whispering; but without much roughness. She spoke easily, and with only slight occasional cough; but when, after a long sentence, she drew a deep breath, laryngeal stridor was produced during inspiration. She was troubled with cough only the first thing in the morning, when she "got the phlegm up", unless she exposed herself to sharp air. Her breath was short. She had no dysphagia.

Externally, the larynx was healthy, and no uneasiness was produced by pressure upon it. The epiglottis was healthy. The posterior edge of the larynx was considerably thickened; within its cavity the disease affected principally the posterior wall, where a collection of large massive granulations projected into the interior of the

larynx, occupying a considerable space. The mass resembled a low pyramid with a very broad base; at the apex, the highest granulation stood up alone, thrown into strong relief by the dark opening of the glottis. (Fig. 5.)

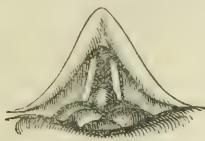


Fig. 5.

The mucous membrane was throughout of natural colour, and free from secretion. The glottis did not open during normal breathing to one-half its usual width; but I was unable to ascertain to what extent closure could be effected during vocalisation. The vocal cords were healthy; the upper vocal cords were free from thickening.

Illustrations

OF

HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

SUSSEX COUNTY HOSPITAL.

DISEASE OF THE TEMPORAL BONE AND INFLAMMATION OF THE BRAIN.

Under the care of E. L. ORMEROD, M.D.

[Reported by R. J. ROGERS, Esq., House-Surgeon.]

CASE I. Disease of the Left Temporal Bone: Inflammation of the Brain: Death: Autopsy. O. F., aged 26, was admitted on December 7th, 1861, from the Deaf and Dumb Institution in Brighton. He had been always liable to pain, with discharge, from the left ear. The discharge suddenly ceased before the present symptoms set in; and had not thoroughly returned since. He had never had any rigors. He stated, through an interpreter, that, a week ago, pain first set in round the lower jaw; thence it extended over his face, head, and left side of the neck, and had continued ever since. He had always perfect sight in both eyes.

On admission, he had an anxious, heavy expression. The tongue was covered with a brownish-white fur; pulse 108, soft. His bowels were open properly. The urine was clear. No rash was perceptible. The pupil of the left eye was contracted; the conjunctiva was injected, and the sight of the eye much impaired. The neck was tender to the touch, and slightly swollen on the left side. He was ordered to have low diet; and three grains of calomel and one-sixth of a grain of tartar emetic in a pill three times a day.

Dec. 9. He was restless during the first part of the night, when the ear broke out bleeding, and after that he was much easier. The tongue was as on the previous day, but drier; it was twisted towards the left side. The left pupil was still contracted. The bowels had been opened twice, scantily. Pulse 120, soft. He stated that he was much easier; and that his sight was quite restored.

Dec. 10th. He was not so well; his expression was anxious. The tongue was dry, with a broad, brown streak down the centre. Pulse 150; the beats being confluent. The bowels were relaxed. The left pupil was closely contracted. He was ordered to repeat the pill twice a day; and to be cupped to eight ounces in the nape of the neck.

Dec. 11th, 9 A.M. He was moribund. His breathing was short, irregular; 50. His pulse was irregular, feeble, very frequent. He had severe pains in the chest. The cupping produced no immediate effect. He could not swallow the pills. Two ounces of wine were ordered. He died the same day at 2 P.M.

The body was examined eighteen hours and a half after death. The skin was generally jaundiced. The skull was singularly thin. There was great congestion of the larger vessels on the surface of the brain; the minuter vessels were not so notably congested; but the bloody points on section of the brain were singularly distinct. The brain was otherwise healthy; the convolutions were not flattened. On the under surface of the left middle lobe, the *dura mater* was adherent for about half an inch square. The brain was of a bright yellow in the central part to this extent, and the neighbouring part was injected. The *dura mater* was thick, yellow, with black, sloughy patches hereabouts. It lay on the petrous bone, separated from it, covering over a cavity as large as a pea, full of black sloughy matter. The left *lateral sinus* was filled with matter of the same kind, and the cut surface of the bone was infiltrated with the same. The pterygoid muscles were black and sloughy. The heart, lungs, and liver, were quite healthy.

CASE II. Disease of Left Temporal Bone: Inflammation of Lateral Sinus: Death: Autopsy. A. S., aged 23, was admitted October 28th, 1863, at 12 noon. His friends(?) placed him in the ward and immediately left him, so that no history could be obtained, further than that five days previously he had applied at the out-patients' room, complaining of headache and pain in the ear of eleven days' duration. He had not been seen by any medical man since that time up to his admission.

He had a dusky looking, anxious expression. His pulse was 96, soft; tongue dry and brown. He was wildly delirious, complaining only of pain down the back. The muscles of the neck were in a state of spasm, resembling tetanus. There was general dullness over the cardiac region. No friction sound was audible. He was ordered five minims of dilute hydrocyanic acid in an ounce of water every four hours; a pint of beef-tea; and six ounces of wine.

8 P.M. He had lain quieter since admission, and the spasm of the neck had passed off to a certain extent. Pulse 120, soft. He now lay on his back, muttering incoherently. The bowels had not acted; and he had not passed urine. There was no distension of the bladder. The tongue was, as before, dry. There was an obscure mottling over the surface of the abdomen. No tenderness existed.

Oct. 29th. He died at 5 A.M.

The body was examined thirty hours after death. The heart was healthy; the lungs were small, collapsed, somewhat loaded with blood, otherwise healthy; the liver was externally healthy; the spleen soft; the kidneys were healthy; the hollow viscera were externally healthy; there was no enlargement of the mesenteric glands. The skull was thin; the bone was unusually vascular. The brain was injected on the surface; the convolutions were flattened. On removing it, some foetid pus appeared at the base, free in the cavity of the arachnoid, and some involved in the meshes of the *pia mater*. Nothing beyond a slight increase of vascularity appeared on section of the brain and cerebellum. The spinal cord was not removed for examination; but the purulent infiltration extended down the canal as far as could be seen. The *dura mater* in the fossa behind the left petrous bone was smeared with adherent foetid pus. The left *lateral sinus* was obstructed by a hard, dark, adherent clot; and the bony groove in which this vein lay was rough and dark. This dark colour was more strikingly shown on section, contrasting with the natural pink colour of the bone elsewhere. One section was fortunately carried through the original seat of the dis-

ease—a small abscess in the mastoid portion of the temporal bone, with rough bare walls in immediate continuity with the darkened bone.

Although the history could not be gathered during life, the case is clear without it. A chronic abscess in the mastoid portion of the temporal bone suddenly set up active mischief in the neighbourhood; involving the dura mater, the left lateral sinus, and then the brain and upper portion of the spinal cord. The spasm of the neck was probably voluntary—to obtain relief by position; not tetanic.

Transactions of Branches.

SHROPSHIRE SCIENTIFIC BRANCH.

PRESIDENT'S ADDRESS.

By WILLIAM EDDOWES, Esq., Pontesbury.

[Delivered October 27th, 1863.]

CANCER: ESPECIALLY WITH REGARD TO THE PROPRIETY OF OPERATION FOR ITS REMOVAL.

As we watch the progress of the various sciences, especially of those most nearly allied to our own, and see by what certain though slow steps they are attaining what seems to us perfection, we are often and involuntarily led to ask ourselves, whether the science of medicine is advancing at an equal pace with others, or, if not as fast, yet as certainly and safely. And, probably, our first thought in answer, is most frequently disappointment, in remembering how many things which once seemed to us to be truths in medicine have turned out to be errors; how often the very best things in theory have proved the very worst in practice; and how many things which seemed to be the best in practice have been shown to be not so good as nothing at all. And it is not because the science of medicine is alone in being subject to such errors, but because it seems more than any other to be so, and because the errors are so startling, that we are apt to be disappointed at our progress, and, it may be, disheartened. Who would have believed some years ago, that inflammation would be proved curable without bleeding; that syphilis, in many of its forms at least, would often disappear without the administration of mercury; nay, much more, that the majority of what we know as acute diseases would get well without any help from physic, and, indeed, that many of them may be almost said to have a natural tendency to do so? But although changes such as these, in the theory and practice of medicine, are apt for a time to shake our belief in it, yet it is only when we look at the matter superficially that they are likely to do so. On a more thorough examination, we shall find that, so far from the present being an age in which we ought to be dissatisfied with our profession, and with what it is doing for ourselves and others, rather is it one of great hope; because, if lately it has been engaged more in pulling down than in building up, yet never before, perhaps, have we had such a chance of a good foundation for the new structure which is to replace the old, as at present, when, as it were, we are so often brought face to face with nature—to use a common expression—and see in what manner she, by herself, repairs the ravages of disease. Even from our opponents we can be gaining strength; for the trial by them of such treatment as that by infinitesimal doses, for instance, is to us, or, at least ought to be, a source of improvement by showing us what may be done, so to speak, in the treatment of disease by no treatment at all.

In surgery, especially, the tendency of late has been to more and more simplicity. Dr. Humphry of Cambridge, in the interesting paper which he read at the

Cambridge Branch of the Association, has shown what may be done in the treatment of wounds, by leaving them exposed to the air, without any kind of dressing; and this method, at least in his hands, has been very satisfactory. Nobody, again, can have read the lectures lately delivered by Mr. Hilton before the College of Surgeons, on the influence of mechanical and physiological rest in the treatment of disease, especially of the joints, without feeling how very valuable records of cases, such as he has related, are, in showing us what may be done by such rest alone. These are but examples, however, of the tendency of modern surgical inquiry, namely, to find mistakes in an old plan of treatment, rather than to discover a new one; but, if a step backward from the path of error is not so good as one forwards in that of truth, yet, if error be—and we know that it is—unavoidable, we must not be dissatisfied.

But not only in the treatment before and after operation, has there been lately much change of opinion, but we may hope now that we are going in the right direction towards deciding what cases are to be treated without any operation, or, at least, with some less heroic than those which were formerly undertaken. As in the practice of medicine we are too ready to think that all diseases require physic, in some shape or other, and that it has been ordained that they should not get well, or that they should not get well so quickly, without it; so in surgery, operations have been and are often undertaken, because we cannot rest satisfied with doing nothing; we are too unwilling to confess not merely to others, but quite as much, though perhaps, unconsciously, to ourselves, how limited our power frequently is, and how often we are absolutely impotent. In no direction, however, is improvement so necessary as in this—in finding out what cases are fit for operation, and what are not; where it should be performed, not with a certainty of success, for that is impossible, but with, at least, a reasonable probability of it; and where it should be avoided, as likely to lead, not merely to disappointment, but perhaps to an aggravation of the disease, which the operation was intended to cure.

There is no disease to which this remark is more applicable than to cancer, and there is none which is more likely to make us discontented with the progress of surgery than this is. Dr. Walshe, in his work on *Cancer*, after reviewing the various and conflicting opinions on the question of operation for the removal of cancerous growths, says: "The accumulated experience of intervening ages, dispassionately scrutinised and fairly interpreted, pronounces the very verdict that was upwards of two thousand years ago rendered by Hippocrates in his memorable aphorism. The lapse of centuries of civilisation has done no more, in respect of the question of operation, than furnish elements for demonstrating what the observant genius of one man had in an era of comparative barbarism so acutely divined." (*The Nature and Treatment of Cancer*, 1846, p. 244.)

But although, in one sense, it may be said that surgery has done less than might have been expected for the relief of those who suffer from malignant disease, yet in the last few years the result of careful inquiry seems to show that more may be done with careful discrimination, than would be inferred from the somewhat sweeping opinion just quoted. It is especially this, the surgical treatment of cancer by operation, which most concerns us, and which will be chiefly spoken of in this address. Very much has been done of late years in investigating the history, anatomy, and pathology of the disease; but this part of the subject of cancer will be only slightly touched upon, and only so far as it comes into relation with the surgery of cancer, and especially with the propriety and results of operation for its removal. For, though very few surgeons probably doubt that in some cases, at least, life may be prolonged by the removal of the primary growth, many think that such

cases are very rare, and not a few suppose that what good is done to these is, on taking a more extended view of the question, found to be more than equalled by the harm which, from the same method of treatment, is done to others. On the other hand, some are so sanguine as to the results of operation, that they seem to look upon the propriety of its performance in the majority of cases as unquestionable; and there are others, though these are very few indeed, who think that cancer may be, in many instances, really cured by such treatment. It becomes, therefore, an interesting and instructive work to find out what facts with their proper deductions should lead us to a definite creed in this matter, and remove some at least, of the doubt with which it is invested. And, in order to this, it will be best to separate the varieties of cancer, and examine each of them by itself. It would indeed, be impossible, in the time allowed to us, to speak fully of this—the surgical part of our subject; an outline only can be drawn, and that a faint one, of the three principal forms of cancer: scirrhus, medullary, and epithelial. These are chosen, not only on account of their greater frequency, and therefore larger interest, but because two of the others, melanotic and osteoid, are closely allied to the medullary, so that the same remarks will nearly apply to the three, and the villous and colloid occur too rarely to be treated separately, as regards the question of operation.

I.—SCIRRHUS.

First, let us consider scirrhus cancer, the most frequent, and, in many respects, the most typical form of the disease.

From recent statistics, we learn that out of 520 cases of cancer of all kinds, in both sexes, in 191 the disease was seated in the female breast: (*Contribution to the Statistics of Cancer*, by S. W. Sibley: *Med.-Chir. Trans.*, vol. xlii.); and, from another set of 500 cases of cancer in external organs only, 269 were cases of cancer in the same organ. (*Contribution to the Statistics of Cancer* by W. M. Baker: *Med.-Chir. Trans.*, vol. xlv.) The frequency, therefore, of the occurrence of cancer of the breast shows pretty nearly that of scirrhus; for this variety of cancer rarely attacks any other organ than the breast, and the breast is very seldom attacked by cancer of any other kind. It will be as well to pass over the pathology of scirrhus, and to enter at once upon that which especially concerns us as surgeons, viz., the propriety of operation; to find out what may be, and what may not be expected from the performance of this; and to explain, if possible, the discrepancy of opinion which has, in all ages, existed on this point. And, taking the last of these first, it seems very probable that much of the difference of opinion which has prevailed, though it may be traced to many causes, has been produced mainly by two; 1. By errors in diagnosis; 2. By expecting too much from the removal of the primary disease. There can be no doubt that many of the cases which have been related many years ago, as those of cancer, cured by operation, have not been cases of cancer at all: and that this happened, not so much from the fact of those who related them being wilfully blind, or more ignorant in proportion to their opportunities than their successors, but because they had not the same means of diagnosis at their disposal that we now have. How often, now, would tumours of very different kinds be classed together, were it not for the correction of the diagnosis by the microscope; so that we may fairly suppose, viewing the matter in the light of modern pathology, that our predecessors were often unavoidably misled by fancied success—success which would in time surely lead to much disappointment when a better diagnosis showed how few of those who suffered from genuine cancer were free for any length of time, after an operation, from a return of the disease. In this manner we can best understand how it has happened in the case of cancer, as it has and will in all

similar cases, where expectations have been raised on no certain basis, that the change from too much confidence in success, has been to too much despondency of doing any good whatever by operation. And this fluctuation of opinion has happened not once or twice, but very frequently, and will continue to do so as long as isolated instances of success or failure are taken for guidance, instead of a widely embracing record of facts.

Therefore, in considering the propriety of operating in cases of scirrhus, it will be necessary to assume that in all, or very nearly all cases, the hope of permanently curing the disease must be given up. It is scarcely necessary to refer to statistics for the proof of this. Mr. Paget, on this subject, writes: "In deciding for or against the removal of a cancerous breast, in any single case, we may, I think, dismiss all hope that the operation will be a final remedy for the disease. I will not say that such a thing is impossible; but it is so highly improbable, that a hope of its occurring in any single case cannot be reasonably entertained." (*Lectures on Surgical Pathology*, edited by Turner, p. 635.)

If, therefore, the hope of curing cancer must be given up, what benefits are to be expected from the performance of an operation for its removal? These: 1. Lengthening of life. 2. Relief of urgent symptoms; and diminution of the total amount of suffering, whether mental or bodily, or both. 3. The satisfaction of the patient or her friends. 4. The procuring a comparatively easy death.

1. *Lengthening of Life.* The most recent statistics concerning this, agree in showing a favourable result, as regards length of life after the operation. Thus, among seventy-eight patients with cancer of the breast, on whom no operation was performed, the average duration of life was 32.25 months, while in fifty-seven cases of the same kind, but in which the disease was removed, the average length of life was 53.2 months—an advantage of about twenty-one months, therefore, being on the side of the operation. (*Med.-Chir. Trans.*, vol. xlii, p. 123-7.) Again, in another set of cases tabulated by a different writer, the advantage on the same side, though not so great, is very marked. (*Med.-Chir. Trans.*, vol. xlv, p. 405.) Thus, in eighty-four cases of scirrhus cancer, almost entirely in the breast, in which the disease was not removed, the average length of life was 43 months; while it reached 55.6 months in those who had undergone operation; the advantage, therefore, on the side of those operated on was rather more than a year.

But, although such records as these seem to prove pretty conclusively the fallacy of the notion that removal of the primary growth, even though the operation be recovered from, causes a worse outbreak of the disease in the end, yet they must not be taken as altogether conclusive, for the reason stated by those who recorded them; viz., that the greater part of the cases in which the operation was done, were those also in which the disease was not very far advanced, and in which it might have been expected that it would run a tolerably long course, even if not interfered with. Again, the mortality arising from the operation in itself must not be forgotten. In the first of the records just quoted, the mortality, in about sixty operations for removal of the breast, was nearly 50 per cent.; and, in the second collection, it was about 10 per cent. in one hundred and nine operations. But, even allowing for these things, the advantage may be said to be decidedly on the side of the operation, when performed in appropriate cases; especially because the increase in the duration of life, whatever it may be, is added to the other advantages derivable from the operation, which may be now considered. Before doing so, however, it may be as well to notice a fact regarding the operation which may lead to mistake. It is sometimes supposed that, in proportion to the early or late performance of the operation, will be the interval

before recurrence, and the duration of life be longer or shorter; and, other things being equal, there is little doubt that such would be the case. But, by merely classifying them according to the time that the disease has been noticed before operation, the result by no means corresponds with such a supposition. Mr. Paget has shewn that no such proportion exists in scirrhus; and that recurrence is, on the whole, not later after early than after delayed operations. And, again, in another table, he shows that the duration of life is not greater after early than after late operations. (*Lect. on Surgical Pathology*, edited by Turner, p. 634.) The explanation which he gives is doubtless the true one: it is, that the most acute cases—those which, in any case, will run the shortest course—are, on the whole, the most early removed. It would, of course, be a fatal error to suppose that, in any particular case, it would be well to defer the operation.

2. *The Relief of Urgent Symptoms and the Diminution of Suffering, etc.* Of the benefit to be gained, under this head, in many cases, there cannot be a doubt. The cases related by Sir B. Brodie, in his *Lectures on Pathology and Surgery*, p. 204 *et seq.*, are particularly interesting and conclusive, and similar instances are by no means few. And, more often than bodily pain and distress, to which such cases as those referred to more particularly relate, do we see mental trouble assuaged, by removing from her sight what the patient considers to be her whole disease. There is, perhaps, among all maladies, not one which so frequently stays all present enjoyment, and, what is far worse, so completely prevents hope of any further happiness, as cancer; and to remove it is, at all events for a time, to restore to the sufferer a state of mind, the value of which cannot be over-estimated. For how long a time, however, supposing an operation to be successful, can we hope for this respite from suffering?

The two sets of statistics, before quoted, agree very nearly as to the average date of recurrence of scirrhus, after the removal of the primary disease: in one it is given as 14.8 months, in twenty-four cases of known recurrence (*Med.-Chir. Trans.*, vol. xlii, p. 126); and in the other as 13.9 months, in sixty-two cases (*Med.-Chir. Trans.*, vol. xlv, p. 400). But no statistics will decide the term for any particular case; and, unfortunately, the average is much raised by those comparatively few cases, which remain, without recurrence, for more than two years. Thus, of the sixty-two cases last mentioned, the disease recurred in fifty-four in less than two years. But statistics alone will not decide the value, any more than the term of freedom from the disease in any special instance. Each must be judged upon its own merits; the removal of a cancer out of sight and mind for a few months, may be worth to one patient very much more than to another. And this may be so, not only on account of a smaller power in one patient than another of bearing disease and pain, or of bearing the consciousness of possessing a fatal and incurable disease—circumstances which may often guide the surgeon in the advice which he gives, on his own responsibility; but on account, also, of many considerations with which he has little to do, but which have, perhaps, more influence on the wishes of the patient than any amount of mere bodily suffering.

3. *Satisfaction of the Patient or her Friends.* We have to consider, in the third place, under what circumstances the surgeon may now and then consent to operate, for the satisfaction of the patient or her friends, even though he feel that the surgical decision, if taken by itself, should be against interference.

It will be enough to refer, for examples, to one or two instances only in which this has happened. Sir B. Brodie relates the case of a lady, who had a scirrhus cancer of the breast on the point of ulceration, as well as enlarged glands in the axilla—the case being one which he considered unfit for operation; but he con-

sented to remove the breast, as the patient was willing, and indeed anxious, to undergo its risk, for the chance of living a short time longer than she otherwise would have done, for the sake of an only child. (*Lectures on Pathology and Surgery*, p. 202.) And Mr. Paget, after remarking that acute cancers are, as a rule, bad for operation, on account of rapid recurrence, gives an instance in which he removed one from a lady who was five months advanced in pregnancy. The benefit, he adds, was very great. She went to her full term, bore her child, and was able to suckle it for a year before she died; so that her most anxious wish was fulfilled in comparative comfort. (*Med. Times and Gaz.*, Sept. 27, 1863.)

4. *Procuring a Comparatively Easy Death.* Lastly, the motive of procuring a comparatively easy death may be sometimes, indeed often, allowed to add weight to other reasons for operating, even though no material lengthening of life can be reasonably anticipated. If, indeed, it were true that the operation caused, ultimately, a worse outbreak of the disease, we should not be justified in entertaining such a reason. But, looking at the statistics previously quoted, it may be believed that this, if it ever occur, happens so rarely, as scarcely to weigh in the decision; and we may surely consider it a gain if, instead of by the effects of a painful and loathsome external disease, the patient die by a painless internal one, of which she is unconscious.

II.—MEDULLARY, OR ENCEPHALOID CANCER.

This form of cancer, which is more frequent than any other in childhood and youth, and among external organs is found chiefly in the bones, the testicle, the eyeball, and the deeper soft parts of the limbs, generally runs a more rapid course than either the scirrhus or the epithelial kinds. But, although its duration is usually shorter, there is no form of malignant disease so liable to strange and marked contrasts in this respect in different cases as this is; and none whose progress is so likely to be interfered with, or stopped for a time, by degeneration or disease in its own substance. Some interesting examples of this fact are related by Mr. Paget (*Lectures on Surgical Pathology*, edited by Turner, pp. 672-5); and Mr. Moore says, "No form of cancer can be more rapidly fatal, none of longer duration." (*System of Surgery*, edited by T. Holmes, vol. i, p. 525.)

It is, therefore, more difficult even than in the case of scirrhus to obtain a correct notion of what the length of life in any individual case will be, by means of an average obtained from the records of many cases put together. But, in comparing the duration of life with and without operation, the exceptional cases on one side should pretty nearly balance those on the other, and it is possible to get some idea of what benefit may be expected from the removal of the primary disease. Thus, from the statistics which have been referred to more than once, we find that in thirty-two cases of medullary cancer in which no operation was performed, the average length of life was 20 months; while it was, on an average, 33.4 months in sixteen cases in which the primary disease had been removed. (*Med.-Chir. Trans.*, vol. xlv, p. 404-5.) There seems to be a difference, too, in the effect of operation, as well as in the general length of life, according to the part affected; thus, the average duration of life in medullary cancer of the bones was 23.6 months, both for the cases operated on, and for those not interfered with. The recurrence of this form of cancer after operation is, for the most part, very rapid. Its average date in sixteen cases was 7.4 months only; and of these, the disease returned in ten within six months from the time of the operation. (*Ibid.*, p. 400.)

The same remarks as to the qualifications necessary in the reception of all statistical records may be applied, as well to this variety of cancer as to scirrhus; the same allowance must be made for the fact of the best cases being those in which an operation is undertaken,

and for the mortality which, in some proportion or other, must of necessity happen after such large operations as those which are often required for the removal of encephaloid tumours, whether by themselves or with the limbs in which they are seated. But we have the same compensation also, not only in some increase in the length of life, as just mentioned, and in the other benefits, mental and bodily, which were referred to when speaking of scirrhus, but also in the chance, though a very small one, of operating on cases in which, almost certainly, the progress of the local disease would have soon killed the patient. An instance of this kind is mentioned by Mr. Moore (*op. cit.*)—that of a woman, the middle and outer part of whose leg was occupied by a very large and rapidly growing soft tumour. "The limb was removed above the knee, and in the stump there soon appeared livid blood-coloured tumours as large as plums, which rapidly grew, and could not be distinguished, before or after section, from fungous hæmatodes. The limb was amputated a second time; and the patient was alive seven years afterwards, and free from disease." Mr. Paget refers, also, to some few occasional cases of long-absent recurrence. (*Lectures*, p. 678.) The same distinguished writer, after noticing the reasons for and against operation, remarks, that another "motive for operation in cases of supposed medullary cancer may often be drawn from the uncertainty of the diagnosis. This is especially the case with those of the long bones, for the removal of which the peril of the necessary operation might seem too great for the probability of advantage from it. I have referred," he adds, "to cases of cartilaginous and myeloid tumours of bone, in which during life the diagnosis from medullary cancer was, I believe, impossible. In all such cases, and I am sure they are not very rare, the observance of a rule against the removal of tumours or of bones, believed to be cancerous, would lead to a lamentable loss of life. All doubts respecting diagnosis are here to be reckoned in favour of operation."

III.—EPITHELIAL CANCER.

This species of malignant disease, which most commonly affects the lip and tongue, though it is far from infrequent in many other parts, occurs more often in males than females, and especially in middle and advanced life. Sometimes its progress, at all events for a time, is so slow, and its symptoms so mild, that many have doubted its being really of cancerous nature; especially as it is found, as a secondary disease, in internal organs much more rarely than any other form of cancer. But its progress to incurable ulceration, and its often rapid recurrence after removal; the affection of neighbouring lymphatic glands with structures like those of the primary disease; and its occasional, if rare, dissemination in internal organs (Paget's *Lectures*, p. 706), seem to point, almost conclusively, to the need of classifying this with the other kinds of cancer. But, if this be the case, there is less doubt of the good to be had by operation in removing the primary growth, than in either scirrhus or medullary disease. And this is not for one reason only; for, 1. The growth being slower in its progress, there will be more chance of removing it before it has spread out of reach. 2. Its usual situation in the skin and the outlets of the mucous canals is equally advantageous for a thorough removal. 3. There is only a small chance of present internal cancerous disease, which so often spoils what seems like a thorough recovery in scirrhus and encephaloid cancer. This fact, indeed, besides being an advantage, also, so far as recovery from the operation is concerned, is an especial inducement to its performance; for, as Mr. Paget remarks (*Lectures*, p. 726), the interval between the recovery from the operation and the recurrence of the disease may be considered as so much added to life, because it is by the progress and consequences of the local

disease that, in the majority of cases, the time of death is determined. 4. From their situation, and often small size, epithelial cancers may be often removed at a comparatively small risk to life.

The latest statistics show the average duration of life in cases of epithelial cancer to be somewhat greater than that in scirrhus, though this is only in some of its forms, or perhaps, more correctly speaking, in some of its situations. Taking epithelial cancer of all organs together, the average for cases in which no operation was performed is given as given 27.4 months; and in cases of operation, 57.6 months—a great advantage on the side of operation. But there is a marked difference, according to the part affected; for while, in cases of operation in cancer of the lips and cheeks, the average length of life is 79.3 months, and in the integuments of the limbs and trunk 58.0 months, the average for cancer of the tongue was, for cases in which there was no operation, only 22.7 months, and 35.0 months when an operation was performed. (*Med.-Chir. Trans.*, vol. xlv, p. 406.) Mr. Sibley gives, from the Middlesex Hospital records, the average of 53 months for cancer of the lip, not removed. (*Ibid.*, vol. xlii, p. 125.)

The recurrence of epithelial cancer is subject to great variety in the length of time which elapses between the time of the operation and its occurrence. In 23 cases, its average date after the operation was only 5.1 months; but, as a set-off against this, there were 8 cases in which no return of disease had taken place at intervals of 41 to 110 months after the operation. (*Ibid.*, vol. xlv, p. 401.) Similar instances of very long freedom from disease are to be found in treatises on the subject; so that in this, more than in either of the other kinds of malignant disease that have been here noticed, it is evident that much good may be done by operation.

It is not necessary to add to the reasons in favour of operation, in this form of cancer, which have been just mentioned, those general considerations for and against it which were entertained when speaking of scirrhus and medullary disease; nor to speak of the necessity in this, as in them, of not operating rashly or needlessly. The remarks there made may be applied here also.

Leaving, then, the consideration of the particular kinds of malignant disease, each by itself, what conclusion may be fairly drawn from the preceding facts concerning scirrhus, medullary, and epithelial cancers? Scarcely any other than this—that, by careful examination of each case, and by weighing well not only especially such elements in the question as belong strictly to our own province, but other circumstances also with which we are less concerned, we shall be often able to do much in lengthening and comforting the lives of those who suffer from this disease, and who come to us for assistance. Too much stress cannot be laid, however, on the necessity of deciding what are, and what are not, fit cases for operation. In an address like the present, it would be out of place to enter into the details of the particular conditions, local and general, which should influence the decision on one side or the other; but it may be said that, if these be not most carefully considered for every case separately; if the surgeon be guided either by mere fancies of his own, without good ground for them, as to interference or non-interference in cancer, by love of operation for its own sake, by *hope* merely, instead of *expectation*, of success from it,—the results will be vexation and disappointment to patient and surgeon, and more or less harm to all surgery.

It has been attempted in this paper to give a short outline of the results of the latest inquiries, as to what good may be expected from operation for the removal of cancer; and the subject has been taken also as an example of the necessity for carefully judging each case in surgery which comes before us by itself, with all the circumstances connected with it, before deciding on

measures for its relief; that is to say, for avoiding the being led to any single plan of treatment by the mere name of the disease. But cancer, in the various and many fluctuations of opinion which have existed concerning its cause, nature, treatment, etc., offers another moral of wide application; namely, the necessity and the difficulty of recording facts. Nothing is easier than to frame a theory; and nothing, it might be almost said, at all events in our profession, is much harder than to record a fact; not a statement merely, but a fact that will bear looking at in all lights, and yet remain what it seemed to be at first—a fact; and yet the opposite opinion to this seems to be the rule. In what other way than because of a want of power, or from carelessness in discerning the difference between suppositions arising from mere coincidences and facts, can we account for the almost daily accounts of new remedies and new methods of treating disease, whose fame lasts only until something else, with equal pretensions to stability, is put forward to replace them? Of course, there can be no progress without novelty; and too much scepticism is as fatal to it as too much belief. But the only hope for a true and definite progress for our profession, is in the recognition by its members of the necessity and duty of a careful study and record of facts. The greater part of the errors which stop the advance of the profession of medicine towards being more like what are called the exact sciences, have not their origin in wilful dishonesty in those who practise it, nor in the conscious record of untruths. It is rather by looking only at what are called "good cases", because they are good; by disregarding bad ones, because they are bad; and, what is more, by refusing to recognise them in our own minds as examples when they interfere with some pet theory of ours; by taking theories for guidance instead of facts; by being too ready to form the opinion first, and then bring the facts down to it; by these things it is, and by many others like them, that our progress is constantly hindered. The only way to avoid them is by keeping truth steadily in sight, and working up to it for its own sake. Every member of the profession can do something. Everybody can, if he will, watch and record the course of a disease, or the effect of a drug; he can, that is to say, if he will, take care to keep what he *thinks* apart from what he *sees*. All of us may work in different ways; but this matters not—it is all the better—so long as we have the same end in view; the present, as was said before, is a time of much hope, for the mist of many errors has been taken away for us, and our path is comparatively clear. If then, while we cannot walk so blindly, we still walk carelessly, it will be our own fault alone if we lose our way.

READING BRANCH.

REPORT OF THE READING PATHOLOGICAL SOCIETY.

By H. COLLEY MARCH, M.B.

[Continued from page 605.]

EMBOLISM.

Chronic Rheumatism: Embolism of Left Brachial Artery: Gangrene. Dr. WELLS related an interesting case of embolism. A lady, aged 60, had suffered for six months from chronic rheumatism, with emaciation; indeed, she had reached the last degree of marasmus and debility. On August 30th, she experienced a sudden sharp pain in the left arm, followed by numbness. When seen on the 31st, the arm and hand were found to be cold and of a bluish colour. There was no pulsation to be felt below the axilla, where the artery beat strongly. An opinion was given that the vessel was plugged, and that mortification of the limb would ensue. On the next day (September 1st), strange to say, the hand was warm, and of a natural colour; and the radial pulse beat as usual at the wrist. On the 2nd, the hand was again

cold and discoloured, and no circulation was perceptible. On the 3rd, the pulsation was once more restored, and the limb was again naturally warm. On the 4th, the coldness and blueness of the hand returned; and pulsation was arrested at the axilla, just below which a firm plug could be felt filling the brachial artery. This state of things continued; and the patient died of asthenia on the 8th, when gangrenous vesicles had formed on the hand, which was quite black.

The heart and the plugged portion of artery were presented to the Society. The cardiac cavities were healthy, and the valves were perfectly free from fibrinous concretions. The brachial artery was seen to be perfectly occluded by a plug of fibrine about an inch in length.

Although it used, not very long ago, to be thought that the wad of fibrine in cases of embolism was the result of arteritis, and was poured forth, or produced *in situ*, by the inflamed vessel, it is now quite evident that in the majority of instances, and probably in all, speaking only of the systemic portion of the arterial system, the occluding material is concreted in the heart, is washed free by the blood, swept into the aorta, and at length arrested by the ever lessening calibre of some artery. The instantaneousness of the affection, as shown by the sharp pain and sudden cessation of circulation; the frequent absence of adhesion between the plug and the vessel, which is often quite healthy; or, when adhesion and inflammation occur, the fact of the presence of a distinct fibrinous nucleus; and the further fact of the occasional existence within this nucleus of a calcareous substance clearly corresponding with similar depositions on the valves of the heart,—all these things place the cardiac origin of embola beyond a doubt.

In all verity, it is rare enough to find, in such cases, the heart and its valves absolutely destitute of every form of fibrinous concretion. But when it is remembered that if, in a perfectly healthy state, the finest possible thread be drawn across the current of blood, fibrine is rapidly and surely deposited upon it; it must be conceded that in a diseased, and especially in a rheumatic, condition of the system, it is by no means unlikely that such depositions should take place on the chordæ tendinæ—depositions, perhaps, of so slight a consistence as to be easily whirled off into the aorta.

While embolism serves to account for grave events, such as some mysterious cases of "senile gangrene", who can say that so slight a thing as a whitlow may not be caused by a particle of fibrine being driven down into a digital artery?

But what makes Dr. Wells's case one of the most remarkable on record, is the fact that *twice* the symptoms disappeared, and the circulation through the artery returned; for it is explicable only on the hypothesis of the dual dissolution of the embolon. It is certainly not a little extraordinary that three successive times a concretion should form in the heart, and be driven down the same artery to be arrested in the same place; especially as the left subclavian is the last of the three great vessels, the first two of which must have been passed by each clot, in order to fulfil its fatal predilection. But this wonder is surpassed by the dissolution of the embolon and the clearance of the vessel on two successive occasions. Perhaps this may indicate a line of treatment in such cases. When at the onset of acute rheumatism a *bruit* announces a deposition of fibrine on the cardiac valves, it is undoubted that its dissolution and dispersion can often be accomplished by a rapid alkalisation of the blood. Is it altogether impossible that the administration of the fixed alkalies should produce the same result in embolism?

DISEASES OF THE BRAIN.

Abscess of the Brain. Mr. HARRISON related a remarkable case. On July 6th, 1862, he was called to Mrs. R., aged 60. Four months previously there had appeared

on the lower part of her right parietal bone, a swelling which was hard and painful, and which gradually increased in size. During this time there had come over her a physical and mental change. She had been in robust health; but had become pale, anorectic, and sleepless. She had been lively and energetic; but had become dull and listless. One day, on sitting down to the pianoforte, she found to her alarm that once familiar airs were all forgotten, and that the fingers of her right hand refused to press the keys. Thereupon Mr. Harrison saw her, and found that the parietal tumour, which was of the size of a small orange, was beginning to ulcerate at the summit. Aided by superficial incisions, the tumour slowly separated, and, when it was become loose at its base, it was cleanly dissected out; the scalp and pericranium being removed to the extent of a crown piece. The subjacent bone was pale and smooth. The structure of the tumour was hard and fibrous. It was removed five weeks after it was first seen, or about the middle of August. Thereafter, having recovered sufficiently to superintend her domestic duties, she was seized, on September 28th, with strong convulsions, which continued for more than three hours, and which were chiefly, but not entirely, confined to the left side of the body. She was bled and purged. When the convulsions had ceased, the left side seemed to be wholly paralysed; but she presently arose, announced her intention to relieve her bowels, and walked upstairs without assistance. Soon afterwards the convulsions returned. Thereupon it was resolved to trephine the denuded bone. This was soft, dry, and easily removed. Then nothing was seen but the dura mater, which was bloodless and discoloured. So this membrane was incised; and, to the satisfaction of all, about two drachms of pus escaped.

For five days afterwards, though there were no convulsions, there were frequent spasmodic twitches; but then, a fresh gush of pus having occurred, these entirely subsided. From this time matters went on well till October 27, when an attack of convulsions ushered in sinistral hemiplegia and partial aphonia.

On October 31st, after a free discharge of pus, the paralysis was suspended; but recurred on November 8th, and continued to the end. *Hernia cerebri* frequently took place. The protrusion was ligatured, and, after a day's interval, cut off. The purulent discharge was copious and offensive. Convulsions occurred on the 21st March; and coma and death on the 27th, just six months from the day of operation. No *post mortem* examination was allowed; but Mr. Harrison exhibited to the Society an excellent cast to illustrate the external appearances.

It was thought that the steps of the disease were as follow. The tumour, though innocent in its nature, brought about the destruction of the underlying portion of pericranium. Through this structure the cranial bones derive the main part of their pabulum, especially in those situations in which the *diploë* is scanty, or altogether absent. Upon just such a spot the pericranium was in this case destroyed, and consequently the bone perished. A slough or sequestrum is often sufficient to arrest the vitality of any piece of the body in contact with it; so a corresponding portion of dura mater died also. But destruction does not, unless in very unfavourable cases, spread indefinitely from a dead centre. The destructive process of inflammation at an end, a process of production begins; and of this, suppuration is the very frequent result. Thus it happened that pus was formed upon the arachnoid membrane, and symptoms of cerebral compression arose.

Convulsions: Death: Cerebral Softening and Hemorrhage. Mr. WALFORD related the case of Richd. Watmore, a dissipated man, aged 40. On the afternoon of Friday, December 5th, he had a fit. He was seen shortly afterwards, and a purge was given. Every five minutes he was shaken with violent and chiefly dextral convulsions,

No reflex action could be excited by pinching the extremities.

On the following day, Saturday, as he was no better, leeches were applied to the temples, and another purge was given.

On Sunday neither the unconsciousness nor the convulsions were relieved; so the jugular vein was opened, and a pint of blood abstracted. By this means he was somewhat benefited; as he protruded his tongue when bid, and to his assembled children made signs, supposed to be indicative of affection. This improvement did not continue; and he died the next day.

Forty hours after death, an autopsy revealed the vessels of the meninges gorged with blood. The brain, much congested, was adherent to the orbital plates, and was a little softer than natural; while the left anterior lobe was almost diffuent.

CANCER.

A few specimens of cancer, having an ordinary interest, were presented.

Abdominal Cancer. Dr. BURNETT related the case of a man, aged 65. Fifteen years ago, he fell and fractured some ribs. Three years after this, he was attacked with severe hemorrhage from the kidneys. The eminent physicians of the day were consulted, but they neither diagnosed his disease, nor relieved his symptoms. From this time forth he constantly complained of deep seated lumbar pain, which was lessened, ever and anon, by the recurrence of the hæmorrhage. Notwithstanding all this, he daily took active exercise. But at length the bleeding became excessive, and he died.

On opening the body, a cancerous mass was discovered, occupying half the abdominal cavity, and weighing twenty-two pounds. In its centre was the right kidney, carcinomatous, and enormously enlarged, weighing fourteen pounds. A melanoid growth, larger than an adult thumb, was found projecting into the vena cava; though this vessel could not have been entirely obstructed, as the lower extremities had not been much swollen. As similar growths were found in the right renal vein, it was conjectured that they were all due to the passage into the circulation of cancer-germs from the kidney.

The occurrence of carcinomatous vegetations on the lining coats of the veins was stated to be very rare.

ANOMALOUS CASE.

Death from Shock? or from Pyæmia? Mr. HARRISON related a case of extreme interest, not only intrinsically, but on account of certain medico-legal relations. Into these, however, it would not be proper to enter. It was the case of a man, the subject of no known disease, who died three days after the receipt of a severe local injury. This man had, only a few months before, recovered from a compound fracture of the leg. It seems that he went in dread of some other mishap, for he had just obtained a policy in an Accidental Death Insurance Society. It is undoubted that, at the moment of his second misfortune, he received a terrible shock, both mental and physical. The point of interest is, whether he died of a state of system brought about *simply by shock*, or whether he died of *pyæmia*; remembering, at the same time, that shock would probably modify the symptoms, but certainly facilitate the origin and accelerate the termination of putrid infection. Pyæmia is an unfortunate term. It suggests to the mind only the type of a disease. It brings up before the mental vision, 1, intense prostration; 2, rigors, sweats, diarrhoea; 3, foulness of any wound, offensive exhalations from the skin and lungs, a discoloured surface of body, whether swallowed or jaundiced; and, above all, secondary abscesses.

But there are infinite shadings off from such a typical portraiture. There may be no rigors; the discoloration of the skin may be slight or marked; "patches of erratic

erysipelas may make their appearance on the skin"; a scarlet rash may appear for a few hours; the symptoms may be slender, and recovery may ensue; but, from the most ephemeral case to the most pronounced pyæmia, they all come under the denomination putrid infection—that is to say, the absorption into the system of certain poisonous products of textural decomposition.

It may be observed, too, that a *reactive power* is essential to the formation of secondary abscesses; and it seems pretty clear that this very capability of reaction might be destroyed by an intense physical and mental shock. So that it is possible that death might be occasioned from what is called pyæmia, without the occurrence of a single metastatic suppuration.

To return, however, to the case in question. A man, aged 60, on Saturday night, October 11th, 1862, fell, and sustained a compound dislocation backwards of the extreme phalanx of the right thumb. During its reduction, which could be effected only by the clove-hitch, the patient was pale, faint, and sick, though no expression of pain escaped him. The thumb was put up in wet lint, supported by strips of cardboard. He passed a quiet night, but was so weak the next morning, Sunday, that he fainted whilst dressing. He went into a neighbouring street to make a short call, and on his return fell asleep, and slept on through the day. In the evening, attention was arrested by the peculiar mottled, congested appearance of his face. His expression was dull, and his eyes were red. Diarrhœa had come on, and vomiting was frequent. This latter so far from being violent, was effected without the least effort. His surface was cool, and his pulse depressed. He passed a restless night.

The next morning, Monday, the vomiting and purging were stayed. His expression was unaltered. The face was of a brighter colour, and the surface was warmer. The tongue was clean, red, and dry; the pulse low. The thumb was dressed. There was no discharge, and no pain or redness. He was drowsy all day; muttered in his sleep, and answered strangely when addressed. The heart's action was regular, though feeble. In the evening, his pulse was become so irregular as not to be counted; and he was bewildered in manner and in speech. In the night he had two convulsive attacks. He constantly wanted to get out of bed. His feces and urine passed involuntarily.

At five o'clock on Tuesday morning, the last day of his life, and the third since the accident, he was found semi-conscious; answering questions, but at once lapsing into torpor. The pulse could scarcely be felt, but the cardiac beats were regular. The thumb was dressed, and the end of it was found to be *black and cold*.

At 10:30, on the chest and inside of the arms, but on no other part of the body, a scarlet efflorescence had appeared. The fauces were not reddened in the slightest degree. The face was congested; the skin *decidedly moist*; the pulse irregular; the brain more oppressed. At two o'clock he was sweating profusely, and at 4:30 he died comatose. Stimulants and nourishment had been administered throughout.

Soon after death the heart was examined. It was small, but perfectly healthy, and contained no coagula nor concretions. Two days later the head was examined—nothing abnormal was found. Three days after death the upper extremities were examined. The right thumb was blackened as far as the first joint. The right hand was discoloured as far as the wrist, and the cuticle was loosened. The veins of the right arm were larger, more distinct, and more discoloured than those of the left. On account of advanced decomposition, no other organs were examined.

Thus it would seem that shock and putrid infection, meet bounds of death, hunted this unfortunate man, as it were, in couples. Shock held him down, while pyæmia fastened in her poisoned fangs; and so, while

"Presently through all his veins ran
A cold and drowsy humour, which did seize
Each vital spirit,"

shock, like a good dog, still held on, till the great killer cried "Dead!"

[To be concluded.]

SOUTH MIDLAND BRANCH.

RUPTURE OF THE AXILLARY VEIN, FROM A DISLOCATION OF THE HUMERUS INTO THE AXILLA.

By HANMETT HAILEY, Esq., Newport Pagnell.

[Read at Northampton, October 22, 1863.]

THE subject of this case having been attended in my absence by a friend, I have enclosed that gentleman's notes of the case, from November 15th to December 2nd, inclusive.

"T. H., aged 59, was suddenly precipitated from a dog-cart on the night of November 15th, 1862. On examination, a dislocation of the humerus had taken place, the head of the bone being in the axilla. Reduction was speedily accomplished with so little force as to astonish the surgeon, and surprise the bystanders. The man was a very attenuated person, and exceedingly weakly, as though habitually feeble. He was removed home, the arm being safely secured. On the following morning he was visited, and all seemed going on well, except that he then complained of great pain in his wrist, which was reddened, and appeared to have been sprained, for which a fomentation was prescribed. On the 19th he was visited again; the pain in the wrist continued, and the hand and some distance of the forearm were œdematous; a bandage was applied, extending to the shoulder. The shoulder was not interfered with, as the pain experienced in it was not more than a common dislocation would produce. On the 24th, the pain and swelling of the hand, wrist, and forearm, were intense. A spirit lotion was ordered to be constantly applied, and morphia given every four hours. This plan somewhat allayed the pain, and gave occasional sleep. On December 2nd, the last time I saw him, he was sitting with his friends in the parlour, and appeared to be going on pretty well."

On December 7th, I visited the patient, and found him in the condition about to be described. The whole limb from the acromion process of the scapula to the extremity of the fingers was much swollen, and the cuticle very sodden; in fact, almost elephantised, exciting the suspicion in my mind, that the head of the bone was unreduced, and was compressing the great vein. The patient himself thought, from the pain in the axilla and the loss of power in the limb, that the bone was out of place. On raising the heavy arm, and rotating the limb, the head of the humerus was clearly ascertained to be in position.

The treatment consisted of anodyne applications, a generous diet, tonics, and opium to produce sleep. This condition continued without much alteration for upwards of a month, when (on January 14th, 1863) a tumour presented itself between the acromion and coracoid process. There was a serous discharge from the axilla, which, with slight encouragement, appeared to increase; but, the fluctuation not being sufficient to convince me of the presence of matter, I punctured the swelling with a grooved needle, and blood only escaped. Symptoms of pyæmia were now present, accompanied by diarrhœa, delirium, and great prostration of strength, and he died comatose a few days after the tumour had first appeared.

POST MORTEM EXAMINATION, seven hours after death. Upon dissecting back, the skin and superficial fascia from the middle of the great pectoral muscle to its insertion into the humerus, so as to bring into view the anterior wall of the axillary space, the projection seen

during life near the coracoid process of the scapula was fully exposed, distending the fibres of the pectoralis major on its way to the humerus. On division of these fibres, the nature of the tumour was explained. A substance apparently solid, of the size of the fist, presented itself through the opening as if bound down by great pressure. This substance was found to be coagulated blood, with part of the muscular tissue of the lesser pectoral, whose tendon was left attached to the humerus. The axillary space being now explored, every part of it was found to be filled with coagulated blood, a little of which appeared recent. The arteries and veins extending from the axilla to the chest could not be discriminated; and not a gland could be perceived. More than two pounds of coagulated blood with altered tissue were removed from the axillary space. The head of the humerus was found in its proper position; but on close inspection, no axillary vein could be perceived; and after searching for some time, its subclavian portion was discovered; on carrying the dissection down the arm, the upper portion of the cephalic vein was found enveloped in a coagulum of blood. In the forearm, not a trace of the vein could be found. The veins at the bend of the elbow could not be traced. The enlargement of the whole limb was the result of infiltration into the tissues, in some parts more than an inch in thickness. The muscles and arteries were healthy, and apparently well nourished.

REMARKS. The interest in this case consists in the extreme rarity of such an injury as rupture of the main vein by dislocation of the humerus. I am not aware of any similar instance being on record, and it is somewhat difficult to understand how the rupture of the vein could have been effected, when so little violence was used in restoring the head of the bone to its original situation. It therefore becomes a question as to whether the injury must not have been inflicted at the time of the original accident. When we take into consideration the spare habit and age of the patient (about 60), this hypothesis appears very tenable; for at that period of life a great change is taking place in the tissues of the body; and although pathologists do not allow that a change in the structure of the veins similar to that of the arteries is undergone, they fully admit that the former are subject to lesions of another nature, such as softening, etc., which will render them at this particular period of life as much prone to rupture on the application of any undue violence as the latter. Therefore, I think the reasonable theory of the case is, that there existed a diseased condition of the coats of the axillary vein at the time of the original accident.

As to the treatment, it might be suggested whether, if the nature of the contents of the cavity had been discovered earlier, and it had been cut down upon, and the large quantity of blood there enclosed removed, the life of the patient could not have been spared. If any of my readers should meet with a similar case, and be fortunate enough to make an early diagnosis, this question may be solved; but, as to myself, such a course was not open to me; for on reference to the case, you will find the only intimation of the nature of the formation was the prominence between the coracoid and acromion processes; and this did not take place until the pyæmic symptoms had made their appearance, and the health of the patient had become very much shattered. The autopsy proves beyond a doubt that, if the blood had been removed at the time of discovery, the patient could not have recovered; for there was not that œdematous condition of the parts below the seat of injury usually present in cases of pressure upon large arterial or venous trunks; but the condition usually present in cases of entire occlusion, or obliteration of large veins, a perfect mass of fat, as Hasse so clearly describes it, "like bacon fat"—not a vein to be perceived. We read of cases of restoration of circulation through collateral branches, even when so large a trunk as the vena

cava has been ruptured; but, I think, taking every circumstance connected with this extraordinary case into consideration, such a prospect could not for one moment have been here entertained.

Reviews and Notices.

ON THE INFLUENCE OF MECHANICAL AND PHYSIOLOGICAL REST IN THE TREATMENT OF ACCIDENTS AND SURGICAL DISEASES, AND THE DIAGNOSTIC VALUE OF PAIN. A Course of Lectures delivered at the Royal College of Surgeons of England in the years 1860, 1861, and 1862. By JOHN HILTON, F.R.S., F.R.C.S., etc. Pp. 499. London: 1863.

OF daily occurrence in practice are instances in which the value of rest as an aid to the reparative powers of nature is manifested, and also in which the disturbance of rest renders the exercise of these powers nugatory. We often, indeed, see and recognise the influence of rest—as, for instance, when we fix a fractured limb in splints or starched bandage; but, if our ordinary surgical proceedings are to be judged by the doctrines which Mr. HILTON lays down and ably supports in these lectures, we do not yet fully appreciate the value of this apparently simple though great therapeutic agent.

After some remarks on the subject of rest in relation to the body generally, Mr. Hilton proceeds in his first Lecture to inquire into some of the expedients by which rest is secured to individual organs. To secreting organs, which undergo a temporary enlargement from vascular turgescence during their active state, rest is secured by the elastic capsules in which they are enveloped, which, aided by other forces, bring the organs to and maintain them in a quiescent state, "allowing the individual minute secreting parts to recover their physiological strength and their tone".

The greater part of the second and third Lectures is occupied with an examination of the means by which the brain and spinal cord are enabled to obtain rest. The author attaches great importance to the cerebro-spinal fluid contained in the internal arachnoid (subarachnoid space of other anatomists). This internal arachnoid cavity passes through the whole length of the vertebral canal, and is continued into the skull. The fluid contained in it acts, Mr. Hilton says, in the manner of a water-bed.

"It not only passes down the whole length of the vertebral canal, but the fluid lies under and supports the cerebellum, as well as the most important parts of the base of the brain; and it further passes upwards into the interior of the brain, and is the fluid which we generally find, after death, occupying to a smaller or larger extent the various ventricles of the brain. In fact, the central parts of the base of the brain, instead of resting upon the bones, rest upon this collection of cerebro-spinal fluid, which forms for it a most beautiful, efficient, and perfectly adapted water-bed; the water-bed itself being sustained in its position by the force of the venous circulation, and also by the elasticity of the dura mater in the vertebral canal." (P. 22.)

Hence injury of the base of the skull may take place without at the time producing any evidence of serious lesion; unless the fracture occur in the anterior part, where the brain rests closely on the bones.

The cerebro-spinal fluid, according to Mr. Hilton, performs a function analogous to that of the elastic capsules of secreting glands; during the vascular turgescence of the optic thalami and corpora striata, for instance, the cerebro-spinal fluid in the lateral ventricles is slowly displaced into the third and fourth ventricles and spinal canal; and, when the physiological excitation ceases, the fluid returns—slowly, as it had receded, through the narrow openings between the ventricles—and acts a mechanical support to the cerebral structures while in a state of rest.

To illustrate the importance of the cerebro-spinal fluid in acting as an equipoise to the intracranial circulation, Mr. Hilton mentions an experiment, in which, on opening the lower part of the spinal canal, compressing the jugular veins, and forcing the blood in them towards the head, the spinal dura mater is seen to be raised by the cerebro-spinal fluid; while, on the other hand, if pressure be made on the dura mater so as to displace the fluid, blood will rise in and flow from the divided veins of the spine. He also relates a case of fracture of the base of the skull, in which, on producing cerebral congestion by desiring the patient to take a full breath and then holding his mouth and nose and compressing the jugular veins, the watery discharge from the ears (which usually attends such cases) became greatly increased in quantity. This experiment, for obvious reasons, he does not recommend others to repeat.

Another proof of the importance of the cerebro-spinal fluid lies, Mr. Hilton shews, in the phenomena observed where the communication which should exist between the cranial and spinal internal arachnoid cavities is closed. This state he has found in many cases of internal hydrocephalus; and he also gives an instance of a gentleman in whom, though not exhibiting all the phenomena usually regarded as denoting hydrocephalus, an occlusion of the cerebro-spinal aperture, probably congenital, was found. He had at various times during life manifested symptoms which, according to Mr. Hilton, indicated that, when any mental or physical exertion produced an increased accumulation of blood in the head, pressure on the brain arose from the cerebro-spinal fluid being unable to escape.

Proceeding now to the more immediate consideration of rest as a therapeutic agent, Mr. Hilton shews its importance in the treatment of injuries of the brain and spinal cord.

"I would," he says, "solicit the attention of the profession to what observation has taught me—that recognised lesions of the brain and its membranes, associated with blows on the head (whether the cranium be fractured or not), do not generally, or as a principle of treatment, obtain that extent of mechanical rest and long continued freedom from occupation which is consistent with the expectation of perfect and complete structural repair." (P. 45.)

A similar observation, as he points out in another page, is applicable to injuries of the spinal cord—such as those which have been frequently produced in railway accidents. He regards the brain and spinal cord, when these parts have undergone concussion, as in a state analogous to that of contusion of external parts; there is probably some structural or molecular disturbance, although it may not be easy or possible to detect this even by minute examination after death. In external injury, the sur-

geon seeks to secure rest for the parts; if this be not secured, they manifest their want of it by pain, and by the occurrence of chronic inflammation, the presence of these symptoms pointing out to the surgeon what it is that Nature requires. But in concussion of the brain,

"The surgeon ought to keep it under his professional surveillance and protection during its prolonged convalescence; because the brain, not manifesting its disturbance by pain, neither gives the same warning to the patient against use, nor by such marked indications, as do injuries to external parts, which express their derangement by pain." (Pp. 48-9.)

In the fourth Lecture, after some observations on the effusion of coagulable lymph as a means of securing rest to serous and mucous membranes in inflammation of these structures, Mr. Hilton offers some remarks on the value of pain as a symptom of disease. In doing this, he enlarges on the value of so-called sympathetic pain—permanent local pain, unattended by signs of inflammation of the part—as a means by which the surgeon, following centripetally the course of the nerve in the ultimate fibres of which the pain is felt, may arrive at the real seat of disease. He relates some instances shewing the importance of an accurate observation of the seat of pain, especially, for example, when this exists in the scalp or external ear, the different parts of which are supplied by nerves from different sources.

The existence of local and fixed pain—simple pain, without increased heat—at some point of the body, Mr. Hilton regards as of very great importance in the detection of disease of the spine. He "feels quite certain that, through the medium of this symptom, properly employed, we may be led to the recognition of morbid conditions of the spine long before there is any evidence of disease by special deformity". He then gives some illustrations of the manner in which, by tracing the nerves from a surface-pain towards the spine, and observing the absence of any sign of disease in the parts through which the nerves pass in their course, the surgeon may arrive, by the law of exclusion, at the spine as the seat of disease.

In the fifth Lecture, he relates several cases illustrative of the value of pain (especially symmetrical pain) as a means of diagnosis of disease or injury of the spine; and also demonstrative of the value of rest as a means of remedy. In more than one case, where symptoms existed indicative of structural disease or injury of the upper part of the spine, and warning the surgeon of the liability to serious interference with the functions of the upper part of the cord, Mr. Hilton has observed the best effects produced by keeping the head and neck perfectly at rest, even for months, by means of sand-bags placed at each side. These sand-bags, *en passant*, he regards as much more valuable articles in surgery as a means of securing rest of parts, than, from their rare use, appears to be generally admitted. As shewing further the importance of rest, Mr. Hilton relates, among his cases, one of a child who had symptoms indicative of disease of the upper cervical vertebrae. Mr. Hilton prescribed absolute rest of the parts; and the pain, fever, loss of appetite, and other symptoms improved at once, and recovery appeared to be procured. At the end of a fortnight, however, an officious nurse made the child sit up to breakfast—she did so; the head fell forwards, and she died.

"The *post mortem* examination proved that disease existed in the articulations between the first and second cervical vertebrae, that the bones were loose, and that, when the head with the atlas fell forward, pressure had been made upon the spinal marrow close to and below the medulla oblongata at the point of decussation, as in pithing animals. This was a case in which both the surgeon and Nature were completely thwarted. The local disease . . . was the result of a blow. It was not constitutional . . . and in all probability would have been improved and cured by proper and long continued rest." (P. 102.)

In the sixth Lecture, the author brings under notice the agency of rest in the cure of abscesses, sinuses, and certain ulcers. In opening an abscess, the ulterior object is to give its internal surfaces rest, so as to permit of their union; and herein lies the *rationale* of the well-known precept, to open the abscess at its lowest part, where the contents are most easily evacuated. This is sometimes difficult; and Mr. Hilton gives illustrations of the modes of overcoming the difficulty. For instance, in supuration under the temporal aponeurosis, the floor cannot be readily reached; the surgeon may open it above the zygoma, but this is not its lowest part; and it is not until the abscess opens spontaneously into the mouth that a cure takes place. Mr. Hilton in such cases anticipates Nature—he "passes a probe through the aperture made above the zygomatic arch, toward the mouth, feels the end of the probe through the walls of the mouth, and then makes a small aperture opposite the point of the probe." Again, a difficulty often arises in the case of deeply seated abscesses. The precept, to "plunge in a knife" in such cases, Mr. Hilton repudiates, on account of the danger attendant on the proceeding. "Persons have died, and many lives have been endangered, by hæmorrhage consequent on opening a deep abscess by a bistoury or lancet." To obviate such danger, Mr. Hilton has for many years adopted the following plan of opening deep abscesses. Taking abscess of the axilla as an example, he says:

"Cut with a lancet through the skin and cellular tissue and fascia of the axilla about half or three-quarters of an inch behind the axillary end of the great pectoral muscle. At that point we can meet with no large blood-vessel. . . . Then push a grooved probe or grooved director upwards into the swelling in the axilla; and, if you will watch the groove in the probe or director as it is being passed up through the comparatively healthy tissues into the axilla, a little stream of opaque serum or pus will shew itself. Take a blunt (not a sharp) instrument, such as a pair of 'dressing forceps', and run the closed blades along the groove in the probe or director into the swelling. Now opening the handles, you at the same time open the blades situated within the abscess, and so tear open the abscess. Lastly, by keeping the blades of the forceps open during the withdrawal of the instrument, you leave a lacerated track or canal, communicating with the collection of pus, which will not readily unite, and will permit the easy exit of matter. In this way you may open an abscess deep in the axilla, or in other important parts of the body, without fear of inflicting any injury upon the patient. . . . During many years I have not opened a deep abscess in any other way; and I can say, honestly and truly, that it has never failed, and that I have never observed any inconvenience from it." (Pp. 120-1.)

Mr. Hilton relates cases, in which this plan has been adopted by him, of orbital, deep cervical, post-

pharyngeal, iliac, subgluteal, subfascial, and submuscular abscesses.

In the next place, Mr. Hilton takes into consideration those cases where "abscesses, or sinuses after abscesses, are moved by muscles, and therefore are very difficult to heal." Here Mr. Hilton points out that the great requirement is rest—to be obtained by impeding the action of the muscles, and by exerting gentle pressure on the abscess or sinus. Where such a proceeding is necessary, as in the case of anal fistula, rest is to be obtained by dividing the anal sphincter. In illustration of the efficacy of procuring rest by simple pressure, Mr. Hilton relates cases of abscesses about the head, face, and neck, and in the popliteal region.

This lecture ends with some remarks, showing how painful irritable ulcers and painful granulations may be relieved by carefully searching with a probe for the spot which is the seat of pain, and dividing the branch of nerve which leads to the spot, or excising the painful granulations.

In the succeeding Lectures, from the seventh to the twelfth, both inclusive, Mr. Hilton demonstrates the importance of an accurate acquaintance with the anatomical distribution of nerves. The proposition which he lays down is that

"The same trunks of nerves whose branches supply the groups of muscles moving a joint, furnish also a distribution of nerves to the skin over the insertion of the same muscles; and—what at this moment more especially merits our attention—the interior of the joint receives its nerves from the same source. This implies an accurate and consentaneous physiological harmony in these various co-operating structures." (P. 157.)

At another part, he extends this principle still further, and finds that it holds good with regard to mucous and serous membranes. If, he says, what has been said regarding the nerve-distribution of joints be true as a broad principle, we ought to find that

"The same trunks of nerves that supply the muscular apparatus should supply the serous membranes, as the pleura or peritoneum, which those muscles move. With regard to the mucous membrane also, the same nerves that supply the muscles which move the walls" (of the larynx, for instance) "should supply the mucous membrane which lines those muscular walls." (P. 236.)

We cannot follow Mr. Hilton through all the interesting examples which he adduces in proof of his doctrine of consentaneity in various structures brought about by their nerve-supply; but we will endeavour to state the principal points which the author seeks to demonstrate.

1. Disease of the interior of a joint produces a reflex nervous action on the muscles moving that joint, so as to produce a fixed position, and consequent rest. Here, however, Nature, if left to herself, very often errs; for, the flexor muscles of joints being the most powerful, the limb becomes bent, and serious structural disease (over and above that which originally existed) is very apt to ensue.

2. Pain, or other disturbance (local inflammation or injury excluded) in a part, should lead the practitioner to seek the seat of the disease in the course of the nerve which supplies the part. Thus, among other illustrations, Mr. Hilton relates cases of furred tongue on one side, connected with decayed teeth and disease within the skull, the state of the tongue

being in all the cases referrible to an interference with the function of the fifth pair of nerves. As to pain, in the knee especially, the remarks which Mr. Hilton makes shew the necessity of great care in the appreciation of this symptom, in order to ascertain in what part of the course of the nerve the diseased condition giving rise to the pain is really seated.

3. Permanent rigidity and flexion, denoting an effort of Nature—though faultily directed—to obtain rest for diseased joints, indicate to the surgeon the necessity of using proper mechanical means (as splints) for keeping the parts in that state of rest which is necessary for their recovery.

4. The pain in the cutaneous branches of the nerves which supply the diseased joints and their muscles being the result of an irritation reflected through the nerves, we may rationally endeavour to act in a reverse direction on the joint and its muscles; viz., by the external application of anæsthetics, such as poppy fomentations, opium, belladonna, or hemlock. In this way, says Mr. Hilton,

"The sensibility of the filaments supplying the skin being reduced, that influence is propagated through the sensitive nerves to the interior of the joint, and to the muscles moving the joint. This diminution of sensibility tends to give quietude or perfect rest to the interior of the joint." (P. 175.)

5. The therapeutic indications pointed out in the preceding two paragraphs are applicable also to other structures than the joints. Thus the contraction of the abdominal muscles in acute peritonitis, and the (probable) spasmodic contraction of the intercostal muscles in pleurisy, are analogous to the contraction which takes place in cases of diseased joints. And Mr. Hilton not only insists strongly on the importance of keeping the intercostal muscles in a quiescent state during pleurisy, but suggests further, that, when the acute mischief has passed off, the chest may be plastered or bandaged, on the same principle as we apply a splint to an inflamed joint to keep it at rest. Again, we may avail ourselves of the cutaneous nerves as a means of applying anæsthetic remedies. Thus

"We know by experience that if we apply strong poppy or opium fomentations, hemlock or belladonna poultices, or anæsthetic embrocations, to the exterior of the chest in inflammatory conditions of the interior, they give a great amount of relief through the medium of the intercostal nerves which come to the surface." (P. 250.)

Again, in speaking of the abdomen, Mr. Hilton considers that the phenomena observed in peritonitis, and the known distribution of the nerves of the part, point to the external use of anæsthetic fomentations; and he refers to a case under his care, in which severe abdominal pain and spasmodic contraction of the abdominal walls were relieved by rubbing a strong solution of opium on the abdomen.

We must now go on—not that we have exhausted all the practical matter in these six lectures—to the remaining portion of the book.

In the thirteenth Lecture, Mr. Hilton expresses his dissent from the opinion that diseases of joints are most commonly the result of a constitutional cachexy—i.e., scrofula. He believes that

"They are almost invariably the results of local injury, and that, if they were recognised early, and treated by rest, nearly all of them would get well. . . . I will

admit that the untoward consequences or results of such cases, originating confessedly in slight local injury or overexertion, are in some measure owing to the unhealthy constitution of the patient; and that the same amount of injury in persons perfectly healthy would, in all probability, have caused no lengthened manifestation of a consequent diseased state. But, then, it should be remembered that, if the general health be bad, it is equivalent to the confession that the powers of reparation are feeble, and that therefore rest, or freedom from local disturbance, becomes necessary." (Pp. 297-8.)

In support of his views, Mr. Hilton shows that disease is of most frequent occurrence in those joints that are most exposed to overexertion or to injury; while in these articulations, such as the costo-vertebral, the pelvic, and the tibio-fibular, which are much less exposed to these accidents, disease rarely occurs. Again, the successful results which follow excision of joints denote, in Mr. Hilton's opinion, that the bones can scarcely be in an unhealthy and scrofulous condition.

The remainder of the lecture is occupied with answers to the objections that may be taken against the long prolonged employment of rest in cases of diseased joints; viz., that the general health may become deteriorated, and that anchylosis of the articular ends of previously healthy bones may be produced by long disuse; and with observations on the differences observed, as regards the phenomena of disease and repair, in children as compared with adults.

The remaining five Lectures consist principally of narratives of, and comments on, cases of diseased joints, illustrating the beneficial effects producible by long continued rest of the parts. The length, however, to which this notice has extended warns us that we must resist the temptation of noticing the valuable practical suggestions arising from a consideration of these cases, which Mr. Hilton makes in the course of his remarks.

Mr. Hilton has done surgical—and it may also be said medical—science and practice good service in thus directing attention to the importance of rest as a therapeutic agent. For putting forth, as he has done, his views on the subject, he deserves the thanks of the profession. An excellent anatomist as well as an able surgeon, he shews throughout the work the application of anatomical knowledge to practice; and in enunciating his doctrines, he never fails, whenever he speaks at all positively, to illustrate them by the relation of some case or cases that have occurred under his notice. His book is, therefore, a thoroughly practical one; and we strongly recommend its study to all practitioners of medicine and surgery—its careful study, we would say; for it is a book which demands and deserves a close perusal.

ON THE CHARACTERS, ACTIONS, AND THERAPEUTIC USES OF THE ORDEAL BEAN OF CALABAR (*Physostigma Venenosum*—Balfour). Edinburgh Graduation Prize Thesis, 1862. By THOMAS R. FRASER, M.D. Edin.; Assistant to the Professor of Materia Medica in the University; late Resident Physician, Royal Infirmary, Edinburgh; formerly President of the Royal Medical Society. Pp. 44. Edin.: 1863.

THE treatise now before us is one of no ordinary character. We sometimes hear it alleged that the profession has in a measure lost some of that pecu-

liarily earnest and acute observation which was so largely manifested towards the close of the last century; but such, we think, is not the case. At no period, probably, has the profession ever had a greater number of exact observers than at the present time. Every discovery and advance in medical science tends to stimulate further both professor and student, and every day brings us in valuable additions to the store of well-ascertained facts. In the occasional production of treatises such as Dr. FRASER's, we believe we have convincing proof that the investigators of our own time cannot be charged with deficient observing powers.

Certainly in no school was the observing spirit, at the time to which we have alluded, more fostered and developed than in that of Edinburgh. She has ever prided herself on her production of exact observers, and of men of that somewhat rare order who "think for themselves".

The present treatise is typically an Edinburgh one, being a graduation thesis which was awarded a gold medal last year by the Medical Faculty in the University. If we are rightly informed, it is no light task to compete for a graduation prize at Edinburgh; and certainly the merits of the prize theses which are annually published are of high order. We believe it is a *sine quâ non* that they shall either contribute some new fact to science, or elucidate some hitherto unexplained phenomena. Such conditions have been fully complied with in the present instance.

We find that Dr. Fraser was one of the first experimenters with the Calabar bean. Professor Christison in 1855 made the first three experiments with it; of these, two were practised upon rabbits, and one upon himself. All further investigation of the subject was suspended until Dr. Fraser, in the winter of 1861, commenced a definite series of investigations. In the meantime, the minute botany of the plant had been recorded by Professor Balfour. In the course of the present year, we have had occasion to notice some of the results obtained by its employment in the hands of several distinguished members of the profession, including Drs. G. Harley, J. W. Ogle, and Argyll Robertson, Messrs. Ernest Hart, Soelberg Wells, Nunneley, and Hulke. On the continent, the subject has likewise attracted much attention, and has been discussed in the Academy of Sciences at Paris, where M. Giralde's has brought forward well-nigh a dozen communications upon it. At Berlin, Professor Von Graefe has introduced the subject to the notice of the Medical Society there.

Dr. Fraser, we notice, makes no allusion in his treatise to any fellow-worker; and for this reason—that at the time his thesis was presented to the University (March 1862), he stood alone as the only exponent of the properties of the Calabar bean. True, he frequently cites the opinions of the learned professor to whom he is now assistant; but we gather that he conducted his experiments entirely by himself.

The thesis is divided into five sections. In Section I, we are introduced to the subject by a short History of the plant which yields the famous bean; and from this we find that, so far back as 1846, a scientific notice of it was communicated to the Ethnological Society by Dr. Daniell. Next we have a concise account of the trial by ordeal, as it still exists in various uncivilised countries. A minute

description is given of the process as conducted in the present day in Old Calabar, and some most interesting details are introduced into this portion. We have likewise in this section the botany of the plant, with a histological account of the bean. Extreme care is evinced under this head. The description of the bean—or seed, as it should be termed—is most elaborate and praiseworthy, shewing an unusual amount of minute observation. In fine, Dr. Fraser has exhausted this part of his subject.

Section II is devoted to the Physiological Actions of the Bean. It seems that the active principle resides in the seed only; and, while severe effects were produced by an alcoholic extract of the *spermoderm* upon rabbits, death did not ensue in any case, although the equivalent of sixty-four grains of the powder was sometimes administered. The leading symptoms are described as general muscular paralysis, slight contraction of pupils, with frequent diuresis and passage of fæces. Recovery occurred in from two to three hours. Fæces and urine continued to be passed for about twelve hours after recovery from the paralysis. Dr. Fraser sums up the actions of the *spermoderm* as being *sedative to the spinal cord, hydragogue cathartic, and diuretic*.

Infinitely more potent are the results arising from doses of the kernel. Paralysis of the limbs is an early symptom; contraction of the pupils is well marked; the respiration becomes slow; a few muscular twitches occur in the extremities. Next follow complete abolition of reflex action, and death. Consciousness remains unaffected till the power of expression is lost. The contractions of the heart sometimes persist for an hour and a half after death, and blood of different colours is found in its chambers. The viscera are engorged.

Dr. Fraser mentions the fact that the stomach is usually found full. This is noteworthy; but, as far as experiments upon rabbits are concerned, we are not surprised to learn this; for we believe it is impossible to meet with an empty stomach in a rabbit, however long it may have been deprived of food.

The posterior extremities appear to have been first affected in most of the cases.

Elaborate experiments were conducted to discover in which manner the poison acted most speedily. Thus there were practised injection into the circulatory system by means of wounded surface; contact of the poison directly with the nervous, muscular, and mucous tissues; injection into the lungs and serous sacs; and introduction into the stomach and rectum. Of these, direct injection acted most speedily. It appears that a local paralysis follows a topical application of any preparation of the bean. Thus vermicular action is suspended when the bowel is painted with the alcoholic extract. Muscular tissue loses its power of contractility, and the cardiac muscle becomes similarly affected, if the poison be brought into contact with the endocardium.

Amongst the important actions of this poison, that exerted upon the pupils deserves attention; for it appears that contraction is produced, whether the application be topical, or through the system. Now, physiologists and ophthalmic surgeons have been seeking such an agent as this for some time past, and Dr. Fraser was the first to demonstrate that the Calabar bean possessed the required properties. We have thought it due to the author to record this fact; as, in some of the papers since published, the

honour of the discovery has unwittingly been awarded to Professor Christison. Had Dr. Fraser published his thesis sooner, such a mistake could not have occurred; and certainly a fact of such importance should have been made known to the profession as early as possible.

From the results of experiments, the author is led to believe that the Calabar bean influences primarily the spinal marrow, and that its action is of a depressing character. The special actions are paralysis of the heart and contraction of the pupils; the latter effect is held to afford a clue to the elucidation of the general action of the poison. This part of the subject is considered with an amount of caution which it fully demands; and Dr. Fraser brings a sound knowledge of the advanced physiological doctrines of the day, and a logical method, to bear upon it. Only those who have had experience in such investigations as these can know the enormity of difficulty to be overcome. Inaccurate observation is useless; hasty generalisation perhaps worse. Knowing this full well, the modern physiologist feels his way warily, and seeks ardently to embrace all the phenomena presented to him; while he is no less careful to exclude all possible causes of fallacy.

No question perhaps presents more scope for research, or more difficulties in the way of solution, than that relating to the physiology of pupillary action. Dr. Fraser quotes Valentin's views, and he might have given us those of other equally eminent experimenters; but we believe they all come short of the ultimate facts. We are not acquainted with the exact influence that each system of nerves to the iris exerts. The scalpel and needle have not as yet taught us their exact anatomy, and all experiments have hitherto failed to satisfy us completely as to their physiology. The element of difficulty lies in the fact, that both cerebral and spinal filaments are supplied to the circular and radiating fibres of the iris. We are familiar with the experiments which teach us that pupillary dilatation is induced by section of the third nerve and stimulation of the sympathetic, while the opposite condition is entailed by stimulation of the third nerve and section of the cervical sympathetic. Such data as we have at present for the nervous supply of the circular and radiating fibres of the iris are, therefore, physiological, and not anatomical; and we are thus led to believe that the third nerve supplies the motor filaments of the circular muscle, and the sympathetic the motor filaments of the radiating muscle of the iris.

Mr. Nunneley, we observe, is disposed to doubt Dr. Fraser's statement that the systemic action of the *Physostigma* will produce pupillary contraction; but we have not as yet before us the facts obtained by this eminent surgeon to compare with those of Dr. Fraser.

Our author sums up this question in the following statement.

"We can thus refer the action of the bean of the *Physostigma venenosum* to the spinal cord. The contraction of the pupils may be caused in three ways: positively, by cerebral irritation; negatively, by spinal depression; and complexly, by a combination of cerebral irritation and spinal depression. The symptoms disprove any cerebral irritative action; so neither the first nor last of these can be regarded as the cause of the contraction. On the other hand, they distinctly indicate

a depressing action on the spinal cord; by this action the power of the cord to transmit impressions is destroyed, and, necessarily, the power of transmitting the nervous influence to the iris. The balance between the dilator and contractor muscles is thus removed by the nervous supply of the dilator being stopped; the circular fibres act, and the pupil is contracted. In a few experiments, it was observed that, some time after the contraction of the pupils had commenced, if the animal was excited to muscular exertion, as in struggling when irritated, the pupils very distinctly dilated. (Experiment 25.)" (P. 15.)

As to the cause of death, Dr. Fraser has shown that it is produced in two ways, either by *asphyxia* or *syncope*; but he states that, from the special action of the poison on the cardiac muscle, it is very probable that the results are complicated by the special weakness of the heart's action. He concludes that the kernel of the bean has the following actions.

"1. It acts on the spinal cord by destroying its power of conducting impressions.

"2. This destruction may result in two well-marked and distinct effects,—

"a. In muscular paralysis, extending gradually to the respiratory apparatus, and producing death by *asphyxia*.

"β. In a rapid paralysis of the heart, probably due to the extension of this action to the sympathetic system, thus causing death by *syncope*.

"3. A difference in the dose accompanies the difference in effect.

"4. This action does not extend to the brain proper *pari passu* with the action on the spinal cord. The functions of the brain may, however, be influenced secondarily.

"5. It also produces paralysis of muscular fibre, striped and unstriped.

"6. It acts as an excitant of the secretory system, increasing more especially the action of the alimentary mucous glands.

"7. Topical effects follow the local application of various preparations; these are,—destruction of the contractility of muscular fibre when applied to the muscles, and contraction of the pupils when applied to the eyeball." (P. 18.)

Those who have studied the action of aconite in poisonous doses cannot fail, we think, to be struck with the apparent similarity that exists in the effects of the two toxic agents.

Section III contains an account of the various preparations of the bean that have been made. A strong tincture, prepared with rectified spirit, seems to be Dr. Fraser's favourite preparation; and of this, five minims is an average dose for the human subject. It appears that the entire active principle or principles may be removed from the kernel by means of rectified spirit. Both the author and Mr. Hanbury have found that the exhausted *fæcula* may be given to animals, with no other effect than that of ordinary starch. No alkaloid has as yet been separated from the kernel, though doubtless we may not have to wait long before its discovery is announced. For producing topical action on the pupil, a syrupy extract is preferred. Of this, a small minim, when applied, will maintain a contracted state of pupil for five days. It appears to be an *inelegant* preparation.

In Section IV, the therapeutics of the *Physostigma* bean are discussed. From its action, Dr. Fraser is led to suppose that it will prove of service in all

conditions of spinal hyperæsthesia; thus he recommends its trial in cases of centric or eccentric tetanus and in epilepsy. Its action on the heart entitles it to a place in our list of sedatives to the circulatory system. A feeble pulse is considered a decided contraindication to its employment in any case. Dr. Fraser details a number of instances in which he made trial of his tincture; and they comprehend sthenic cases of erysipelas, delirium tremens, febricula, acute bronchitis, and rheumatic fever. Of its powers in producing a condition favourable to sleep the author has a high opinion, and he urges its employment in the insomnia of delirium tremens. Its local anæsthetic action seems likewise to be noteworthy in cases of neuralgia.

Section v is devoted to a minutely detailed account of all the experiments performed by the author, and they certainly form a valuable appendix to the treatise, and reflect the highest credit upon Dr. Fraser.

We cannot conclude this notice without paying a further compliment to the author for the literary merits of his thesis. The combination of minuteness and perspicuity manifested throughout each section is cleverly achieved, and thus the interest of the reader is maintained to the end.

In the publication of one of the Edinburgh prize theses for 1862, Dr. Fraser has undoubtedly laid the whole profession under obligation to himself.

British Medical Journal.

SATURDAY, DECEMBER 12TH, 1863.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

A CORRESPONDENT deprecates all further discussion respecting the power of the King and Queen's College of Physicians of Dublin to grant the diploma of Doctor of Medicine. But he gives no reason for so doing; and his deprecation is not flattering to the College whose interests he would advocate. He is, moreover, quite mistaken in supposing that the question has already undergone long discussion. What has been so much debated in the journals is quite another thing; viz., whether or not Licentiates of Colleges of Physicians, non-diplomatised, may properly call themselves Doctor. Now, as far as we are concerned, this latter question is settled. A fair and liberal consideration of all the facts touching that matter has brought us to the conclusion that a Licentiate may prefix to his name the title of Doctor; but this is a very different affair from a College of Physicians suddenly assuming the power of granting the degree of Doctor in Medicine. It is a very different thing also from a Licentiate assuming to himself the title of Doctor in Medicine, or putting M.D. after his name.

The King and Queen's College of Physicians in

Ireland has lately discovered and declared that it has the right to grant the diploma of Doctor in Medicine, as well as a license to practise; and, in fact, it does at this moment actually grant the degree of Doctor in Medicine, and enjoins its Licentiates that they may affix M.D. to their names. Now, what we naturally ask, on hearing the startling announcement, is simply this; viz., the grounds upon which this newly made claim is founded. Certainly it is a very tempting physician's license, and a completely novel physician's licence, which bears with it the positive and legal right to the diploma of Doctor of Medicine. Certainly a lucky and highly privileged College of Physicians that must be, which is possessed of so happy and remarkable a privilege and power. No other College in the country possesses, or pretends to possess, such a remarkable power and so great a privilege. Possessing this, it has within itself all that men of medicine require in that way. It can make them physicians, and can give them the degree and title of Doctor in Medicine; and all at one great go!

Well, we suppose that the profession in the United Kingdom will not remain wholly blind to this great chance now opened to them. Surely the Dublin College offers to give men for their money that which neither of the other Colleges does or can give; and therefore, according to the ordinary commercial code of the country, we may reasonably suppose that it will draw to itself plenty of applicants for its good things. It is only natural to suppose that such will be the case.

Well, as the claim is new and very peculiar, we consequently, as critical guardians of the interests of the profession, venture, or rather feel ourselves called upon, to ask the Dublin College, just simply for the satisfaction of the profession at large, to tell us what the grounds are upon which it bases the exercise of this great, this newly exercised and remarkable privilege. It is, of course, enough for medical men in general that so highly renowned a College should solemnly assert its possession of the right. They may argue, that no great public and highly honoured corporation like this would venture to claim or exercise such a power, if its right to the exercise were not as clear and undeniable as is the possession of its very charter. But men who, like ourselves, have to watch over the affairs of the profession, have no right to be so easily satisfied; and it is our duty not to be so. When we find a College of Physicians which has had more than two hundred years of existence, and whose last charter dates from the days of William and Mary, suddenly, on the occasion of that famous year of grace, putting forth a new claim, exercising a novel function, which all the world previously had believed was in modern days vested solely in Universities (and in a stray archbishop), viz., that of granting degrees of medi-

cine,—we naturally say: “But pray give us the terms of your charter, or the words of the Act of Parliament, upon which this new and surprising claim is based.” Is not such curiosity on our part most natural, praiseworthy, and legitimate? And why should the College hesitate to satisfy so reasonable a curiosity? Whose ends are we serving in making this demand?—whose, manifestly, but those of the College itself, and of the gentlemen who seek its license and newly attached diploma? The College possesses the right, it is said. Of course, thereby is meant the legal, the legitimate right to grant diplomas. What, then, can it desire better, than that the grounds—the legal grounds—on which the right is based, should be widely known, and publicly declared from one end of the kingdom to the other? The public exhibition and recognition of the grounds of the claim will only more solidly fix the just right in the minds of the profession. And sure we are that the very last thing which a great corporation like the King and Queen’s College would desire is, that there should be any mystery or concealment as to proclamation of the grounds of right. Neither can the College be surprised if the profession ask for such proclamation at their hands; their claim being novel, one seriously affecting the position of the other Colleges and of the Universities, and possibly of considerable interest even to the antiquarian researchers of old records.

Just at the very time, let it be remembered, when there was a great demand for the article—viz., for the title of Doctor—comes forth this new claim, and the exercise of it. How the right was discovered, who first suggested the claim, what are the documents on which it is founded, are the things we are now asking for, and, as it seems to us, most reasonably asking for. Certainly the College has given some response to these questions. It has not made and exercised the new function without some kind of legal authority. The once Attorney-General of Ireland, Deasy, did, at the request of the College, peruse their charters and several Acts of Parliament bearing thereon; and says he: “*I think*” (the italics are ours) “the Licentiates and Fellows, as such, of the King and Queen’s College of Physicians, are entitled to the degree and title of Doctors in Medicine, and to use the letters M.D. after their names.” Mr. Deasy *thinks* that what the College desires, it possesses; and on the strength of Mr. Deasy’s thinking the College acts. It issues diplomas in medicine, and makes men M.D.s But a difficulty arises here, at least in our mind. The value of Mr. Deasy’s thinking seems to be neutralised by an opposite legal opinion, into which no thinking at all appears to enter. The very same case, as we conclude, which was laid before Mr. Deasy, is laid (by other parties, of course) before Sir Hugh Cairns and Mr. Hobhouse; and what say they to it? “Supposing the

College to have no larger powers than are disclosed in the case laid before the Attorney-General of Ireland, we are clearly of opinion that it has no power to confer the degree of Doctor of Medicine; and, without the degree, there can be no right to title, etc.” Naturally enough, the College prefers Mr. Deasy’s *thinkings* to Sir Hugh Cairns’s and Mr. Hobhouse’s *clear opinion*. But what are we outsiders to do? Are we put in a fair position, so long as these contraries in opinion exist?

Moreover, it must not be forgotten that the College has actually failed in one attempt which it made to get a legal recognition of its claim. The College tried to get the name of one of its Licentiates inserted in the *Medical Register* as Doctor of Medicine; but the learned judges (and, we believe, Baron Deasy among them, the late Attorney-General, and the College’s once counsel, who gave the “thinking” opinion) decided that such title could not be inserted in the *Register*. Hence, then, at all events, its diploma is not one which bears the tokens necessary for admission into the *Medical Register*.

Now what is the profession to think, in this dilemma? Has it not a very good right to ask a College which, under such circumstances, exercises this newly acquired privilege, to come forth and tell us how it has satisfactorily squared off the opposing legal opinions of Sir Hugh Cairns and Co. and Mr. Deasy, and the negative opinion of learned judges? The College may have other overwhelming proofs in its favour; but, as far as we can understand the matter, it rests its authority to grant degrees in medicine solely on the strength of Mr. Deasy’s “*I think*”, which, as we have said, unfortunately appears more than neutralised by the “clearly of opinion” of Sir Hugh Cairns and Mr. Hobhouse.

Surely this position of so important a matter can be hardly satisfactory to so highly placed a College. A large number of our brethren in the country are deeply interested in it. On the strength of the College’s asserted and exercised claim, many gentlemen have doubtless joined the College, have taken the title of Doctor in Medicine, and write M.D. after their name—being possessed of no other qualification to the title. It is in their name, and in the name of all those gentlemen who may hereafter go to Dublin for a similar purpose, that we call upon the King and Queen’s College to give the profession plenary satisfaction in this matter. Surely it must possess something stronger to back its claim than the “*I think*” of Councillor Deasy, which, as we have said, seems swallowed up by the “clearly of opinion” of the magicians Cairns and Hobhouse. We, therefore, ask the College what this “something stronger”—this to us *nescio quid*—is. We need hardly add, that the strength of a just claim is only made stronger by publicity. The more closely

the character of a virtuous woman is investigated—the more it is tried in the fire of opinion—the more clear does it show before the world.

POOR-LAW GUARDIANS' MEDICAL RELIEF.

OUR readers will be curious to learn the answer which has been handed to Dr. Griffin by the Southampton Poor-law Guardians, and the sequel of the affair told of in our last number.

Dr. Hearne, who undertook the work of the Poor-law people during the illness of Dr. Griffin, continued his attendance upon the pauper-sick for a fortnight; and we are not at all surprised to learn that he had had enough of the business at the end of that time, and declined any further operations of the kind. Thereupon, the Guardians insisted that Dr. Griffin should find a substitute, as it appears they have the right to do, in accordance with Article cc of the Poor-law Board's Orders—Dr. Cheeseman, his originally appointed substitute, having declined to act. Three medical gentlemen of Southampton here stepped in and kindly volunteered their assistance, and are now doing the visiting part of the duties of Dr. Griffin.

But what answer have the Board given to Dr. Griffin's letter? The Board, in reply, passed a resolution, by a majority of two :—

"That if Dr. Griffin is dissatisfied with the terms on which he holds his appointment of district medical officer, that he be requested to tender his resignation of the same."

Dr. Griffin is, doubtless, placed in a difficult position by this resolution; for he has distinctly told his masters, that two doctors even could not do the work which he has to do. Assuredly, there never was a more fitting or proper occasion offered to the profession on which to fight the battle of the Poor-law doctor. We cannot agree with the idea that Parliament alone can come to our aid here. We have the ball in our own hands, if we only had the good sense and professional spirit enough to roll it. The Poor-law Guardians are not half as cruel to us as we are to ourselves. What right have we medical men to complain of cruelty, if we knowingly accept the cruel work of such masters? Medical men have taught the Army and Navy Boards a lesson—why should they not equally teach the Poor-law Guardians a lesson? Why should not the profession at large call upon their medical brethren to pause before they seek employment in such a labour as that offered them by the Poor-law Guardians of Southampton. Let every man reject such terms with scorn, as he is bound to reject them in honour—if he know that he cannot perform the duties attaching to them—if he know that in accepting the office he is doing so to the injury of the sick as well

as to the injury of himself, and to the injury of the whole profession.

We must candidly say, that whoever accepts such appointments as is this—where the pay is counted by farthings and the visits to the sick by hundreds—has no right to complain of the cruelty and the hardship of the employment he has undertaken; nor has he any right to apply to the profession for sympathy.

But in what position is the Board of Guardians placed? We now hear that the Medical Society of Southampton have taken the matter up, and have passed a series of resolutions and presented them to the Board, to the effect that no one man can do the work now allotted to Dr. Griffin. In what position are they placed, if they still wilfully persevere in forcing the work into one man's hands—now that they are so authoritatively told that, in doing so, they must of necessity do that which will prevent the poor having proper medical aid?

THE WEEK.

THE St. Mary's Hospital has already, on more than one occasion, set a good example to London hospitals. It has this week done so again. Its Medical Committee have recommended to the Board (and there is no doubt that the Board will accept the recommendation) that a chloroformist be appointed as one of the regular staff of the hospital. We lately showed, in speaking of the numerous deaths which have occurred through chloroform in this metropolis, how necessary it was that such a fearfully powerful instrument should only be used by one who was well accustomed to its management; and certainly we could not but fear lest that some of the accidents referred to might be traced to want of due knowledge in its application. We sincerely trust all the other hospitals of London will follow this excellent example; and, more than this, we hope that the Medical Committees will urge on their hospitals the propriety of paying their chloroformist a suitable salary for his services.

OUR French brethren have a law under which the practice of medicine is protected, so that, in fact, it is illegal for any non-diplomatist and not properly licensed person to practise the healing art in France; and yet on all sides quacks prevail, and in all directions French medical men are exclaiming against the abuses committed by these unlicensed parties. All attempts to put them down by legal prosecutions appear in vain; nay, the prosecutions in many cases only add to the celebrity of these gentry, and the punishment-fine of a few francs inflicted on them only converts them into persecuted martyrs, and so worthy above all of the special regards of the faith.

ful credulous. Perhaps we may here, in this country, take a lesson from the fact. We also cry out against the doings of quacks, the injury which they inflict on the public, and the robbery which they do to the profession; and we call upon that legislative Jupiter Olympius which sits at Westminster to come and help us. But how can government help us here more than it can in France? *Populus vult decipi*. The people will have quacks; and we may be sure that no penal enactments will shut up so lucrative a business as is that of quackery. Here we find at this moment our French friends demanding, as the only remedy, more protection, and in some such terms as these: "Everywhere there is a cry out for a new legislative protection of the rights for which we have paid in becoming doctors; but the time for obtaining the satisfaction seems indefinitely adjourned. In vain do we petition and re-petition. The money for our diplomas is still regularly taken from us; but where is the protection given us in exchange?"

In the *Temple Bar Magazine* of November 1863 is a description of a marriage not *à la mode*. The writer is explaining how a man may live married on £300 *per annum*; and mentions, amongst other means of economising, that "gratuitous medical services" are always to be had. Here are the words.

"But I have forgotten doctors' bills? If you do not come across somebody who is *but too happy* to feel the pulse and draw the teeth of your placens uxor for nothing, all I can say is, that you are a great muff. *I speak advisedly*. Such gratuitous healing is of every-day occurrence, not among the rich rampantly respectable classes—why should it be?—but among the set who will now be yours."

To this complexion has our profession at last been brought by this villanous system. The public now have begun *openly* to laugh at us whilst accepting our attentions gratis!

In the recently published second edition of his work on *Urine*, Dr. Beale, in speaking of Diabetes, notices the several views which have been propounded as to the formation of sugar within the body. He goes through the subject in a very careful and complete manner, and expresses his adherence to the doctrines of Bernard, and his dissent from those of Dr. Pavy. Regarding the statement of the last named physiologist, that the formation of sugar in the liver is a *post mortem* phenomenon, he says:

"I cannot think that the life of the animal can make all the difference which is supposed in the action of the liver. Surely, if a considerable quantity of sugar can be demonstrated to exist in the liver immediately after death, we are not justified in considering this a mere *post mortem* change. A piece of cat's liver, the instant death has taken place, exhibits the presence of sugar in precisely the same manner as a piece of the same liver removed during life. It is doubtful if the great central organs of the nervous system produce that immediate change in many of the nutritive and secreting opera-

tions of the body, which the supposed necessity for this very quick removal of the liver seems to argue.

"Nor is it an answer to this objection to say that, as certain of the nerve-cells cease to manifest any activity the instant death takes place, it is possible that the liver-cells may as instantly cease to perform their functions. We know that there are some cells which may exhibit their actions for a long time after death, and which will retain their vitality, so that they can be removed from one organism to another. . . . There is no reason for supposing that the liver-cell, unlike many other cells connected with different secreting organs, dies the instant the death of the animal takes place. . . . Moreover, it is most probable that the changes taking place in the amyloid matter of the liver-cell are not vital changes at all, but due rather to chemical and physical actions only."

This last sentence is in accordance with the views held by Dr. Beale regarding the structure of cells. He believes that the outer part of these structures—the "formed material", as he calls it—does not possess vitality; and that all the changes which go on in and through it are merely physical and chemical. In the twelfth chapter of his book, he makes an ingenious application of his theories regarding "germinal matter" and "formed material" to the production of amyloid and sugar in the liver.

Ovariectomy has found its way into Spain. Dr. Rubio of Seville appears to be the first Spanish operator in this way—on the 5th of October last. The tumour was an encephaloid degeneration of the ovary; and, we need hardly add, the operation was not successful. An ounce of chloroform was administered, we are told, without producing anæsthesia; consequently, the operation was performed without its aid.

There are, says the *Gazette Médicale*, but few master minds and great thinkers in the Faculty of Medicine. Consequently, any one with an easy flow of speech can attain a high position there; so that, as Pliny says, the man who is distinguished in the use of his tongue takes the first place. *Ut quisque inter istos loquendo polleat*. In truth, nothing is rarer than eloquence, nothing more common than a ready talker; and, with the mass, ready talking goes for eloquence. We must not, therefore, be surprised at the lecture-room success so often obtained by men whose only merit is to speak without hesitation, and so earn for themselves a reputation out of their inexhaustible verbiage—*ingenti garrulitate*.

In this country, as we have so often stated, the hospital and other public authorities are far behind the scientific knowledge of the age in the matter of the therapeutical use of water. Another example has been set us in the matter, and this time by the Belgian Government. On the recommendation of M. Vleminckx, Inspector-General of the Army, a hydro-therapeutical hospital has been established for the treatment of certain diseases of the troops at Brussels.

Naples, like the rest of the world, has had its Medical Congress, under the presidency of Senator Prudente. The *préfet* gave the Congress a grand *festino*, and a fraternal banquet was held in the Jardin d'Hiver. Rome was selected by acclamation as the place of the next meeting of the Congress; but, as it was possible some objection might arise as to the assembling there of so many liberal and enlightened men, it was prudently arranged that, if Rome could not be had, Florence should be the place.

Hirudiculture is a tolerably disgusting business. Leeches are produced on an extensive scale in the neighbourhood of Arcachon, near Bordeaux. The old method of feeding the animals was to drive into the marshes, where they are bred, wretched, lame, and worn-out horses. But these poor beasts, unfortunately, died too quickly for the leech-growers' account. The veins which were opened by the annelids did not heal up, and so let out the life-blood of the animals. It is now found more economical to feed the leeches on cows. The heavy, dull animal, haggard, frightened, and yet resigned to its fate, bears the onslaught of the leeches, which are attached like bunches of grapes to its belly and legs, with a sort of stupid surprise. When, however, the animal is about to expire from exhaustion, it is driven off into new pasturage, to renew its life and prepare it for another attack of the leeches; and in this way, from fortnight to fortnight, the animal is eaten up in detail, until death arrives. The donkey is employed for feeding the young leeches, and is less resigned than the cow. He rushes about, kicks, and bites; and at last he falls into the swamp, under the repeated attacks of the leeches, and then shakes with terror. The bites in him, like those in the horse, remain a long time open; and he generally dies after serving twice as food for the leeches. A breeder in Andenge, who has four *hectares* of marshes, drives into them every year upwards of two hundred cows and many dozens of donkeys for the nourishment of 800,000 leeches. Every year, 1,500,000 leeches are sent to Bordeaux from the neighbourhood of Arcachon.

Dr. Chissault of Orleans, in his inaugural thesis on Marriages of Consanguinity, asks why "France should be more retrograde than China, where marriages of this kind are forbidden? Why should not France, ever at the head of all great movements, not be the first country in Europe to set an example in this question, which interests families and society in so many ways?"

Spontaneous generation being still the subject of continued and warm debates in the French Academy of Sciences, M. Flourens has proposed the nomination of a Committee to settle the question once for all. "Spontaneous generation," he said, "is an error twenty centuries old; it is the popular error of

savants. It cannot, therefore, be refuted orally—*verba volant*. We must have a lasting record—*une trace éternelle*—of the refutation; that is to say, an academic report in due form."

M. Vigna, a Venetian physician, states that "scald head" is unknown almost in Venetia. He had seen but one case in Venice.

M. Quatrefages, in the name of MM. Filhol and Garrigon, lately placed before the Academy of Sciences a variety of articles found in caverns in the south of France. These articles, it was said, show that the men who used them were cotemporaneous with the men who constructed the lake habitations in Switzerland, and left arms, utensils, and monuments characteristic of the age of stone in Switzerland. Some philosopher, we may remind our readers, lately asserted that these lake Swiss dwellings were built by beavers!

The known fact of the comparative immunity from yellow fever of the negro race has been again confirmed in Mexico. The French army has suffered and is suffering most severely from yellow fever; but the negro troops—Egyptian and others—employed by the French, had entirely escaped the fever.

A very lengthy and learned discussion has been for some time past going on in the French Academy of Medicine concerning hydrophobia. Many leading French authorities have delivered themselves of much eloquence on the subject; but we have not been able to note that anything new or important has been added thereby to our scientific knowledge respecting the origin, symptoms, or cure of the disease.

The Parisian medical students appear to be in a riotous mood this year. Several disturbances have already occurred at opening lectures; and we now read that M. Robin's histological opening lecture was marked by *désordres regrettables*—on account, it was supposed, of the professor's severity as an examiner.

Some time ago, M. Courty declared that intra-uterine cauterisations were very efficacious and innocuous. M. Nonat, *per contra*, asserts that accidents often result from such cauterising.

Balloons are at present the order of the day at the Academy of Sciences. Communications from all sides are addressed to the learned assembly, and at once delivered into the hands of the ruthless and spiritual M. Babinet.

M. Aremberg has addressed to the Academy of Sciences a paper on Social Morality founded on Cephalometry.

Dr. Shrimpton has published a pamphlet entitled *The War in the East, the English Army, and Miss Nightingale*. In this pamphlet he draws a comparison between the French and English sanitary administrations, and wholly in favour of the former.

THE HEALTH OF THE NAVY: HOME STATION.

THE statistical report of the health of the navy for 1860 comprises the returns from the medical officers of the ships on the nine stations where a permanent fleet is kept, and of those of the irregular force. The report gives no information respecting the effects of iron-clad vessels upon the health of their crews.

The force on the home station is estimated at about 23,500 men. The daily average on the sick-list amounted to 935, or about 4 per cent. The loss by invaliding amounted to 690, or about 3 per cent. of the whole force, and by death to 263, thus making a total loss to the service on that station of 953 men in the year, more than $4\frac{1}{2}$ per cent.

Of diseases, influenza and catarrh take the lead, being 20 per cent. of the whole. Abscesses and ulcers come next. There were 1633 cases of rheumatism, and 3000 cases of venereal disease, of which there is a large increase. Three-fourths of the total number are ascribed to the infected communities of Portsmouth, Devonport, and Sheerness. It is there alleged that "whenever the crew of a sea-going ship is permitted to land on liberty at either of these ports, the indulgence is sure to be followed by a sudden rise on the sick-list; this, in fact, is so certain, that the arrival of the ship and the granting leave might be ascertained by the medical returns alone."

Of 641 cases of inflammation of the lungs and pleura, 30 were invalided and 27 died; and of the cases of phthisis and hæmoptysis, 132 were invalided, and 71 died. Consumption is thus on board ship no less than land the fertile cause of death in these latitudes.

FRENCH ACADEMY OF SCIENCES.

FERMENTATION AND FERMENTS.

M. Lemaire denies that a special ferment for every kind of fermentation exists. He finds the same microscopic beings present whether sugar is being changed into alcohol, or alcohol into acetic acid. But in the case of *neutral* animal and vegetable matters he has assured himself that microzoa begin the decomposition, which, when the matters become acid, is carried on by microphytes. By means of a little acid, these latter may be made to appear at will, and the author consequently argues that mycoderms do not make the acid, but appear in consequence of its presence. The acidity of the perspiration it is thought may cause the development of certain microphytes which are observed in some obstinate cutaneous affections.

PAINTED WINDOWS.

M. Chevreul, in speaking of the superior effect of old glass, attributes this superiority to what we moderns call defects. In the first place, much of the ancient glass is of unequal thickness, or, in other words, the two surfaces are not parallel, so presenting convex and concave parts, which act very differently on the light, and produce agreeable effects. In the next place, the old coloured glass is not a colourless glass, *plus* the particular colouring material, such as protoxide of cobalt, etc. Old glass contains a good deal of oxide of iron, which coloured it green, and to this must be attributed the peculiar effects of antique glass coloured by cobalt and manganese. M. Chevreul appears to think that modern coloured glass is too transparent to produce the best effects.

RAIN WATER.

M. Robinet has collected and examined the water falling in Paris during the last eighteen months, having made a hundred and thirteen observations. He found

the water always more or less charged with saline matter, the larger quantities always being found after prolonged drought. On collecting the water during continued rain, he found that the amount of fixed matters diminished as the rain continued. The saline matter was principally sulphate of lime, always accompanied by a little organic matter, not well understood. The amount of sulphate of lime sometimes rose to as much as twenty grammes and more in a cubic metre. Rain water froths on agitation more than any water the author compared with it. Nitrate of silver dissolved in the rain water gave in time various shades of red, and formed a reddish deposit, which contained silver. The exact nature of the substance which produces the phenomena of colouration is unknown.

ORGANISMS IN HUMAN BLOOD.

Signor Tigrì presented on October 12th, a memoir in which he drew the following conclusions. 1. Under certain special states of disease, bacteria may be developed in human blood during life. 2. After death, monads and vibrios appear in the blood, and may be regarded as the agents of putrefaction.

CORN EIGHTEEN HUNDRED YEARS OLD.

M. De Luca has analysed some unground corn found in the bakehouse at Pompeii. The grains had kept their shape, but when found were of a brownish-black colour. All trace of starch had disappeared, and there was nothing left which would reduce the cupro-potassic tartrate or undergo fermentation with yeast. The amount of nitrogen found in the corn corresponded exactly with the amount found in recent grains, and it is worthy of note that after eighteen hundred years the corn which had lost all its hydrogen and nearly all its oxygen still retained its exact amount of nitrogen and perhaps of carbon. The loss is probably due to the action of time and atmospheric agents. In the ashes the author found precisely the same mineral ingredients as are found in ordinary corn; that is to say, phosphoric acid in excess, potash, soda, magnesia, lime, chlorine, sulphuric acid, silica, iron, and traces of manganese. In summing up, the author remarks that the corn found at Pompeii, while retaining its original form, had lost all trace of organic product, containing neither starch, gluten, sugar, nor fatty matter; and yet had decomposed in such a way that there still remained all the nitrogen and nearly all the carbon usually found in corn.

EXPERIMENTS ON THE PHYSIOLOGICAL ACTION OF THE SALTS OF THALLIUM.

The conclusions under this head, drawn by M. Paulet, are the following.

1. Thallium is a more energetic poison than lead; it may be classed among the most poisonous metals.
2. Carbonate of thallium in a dose of one *gramme* kills a rabbit in some hours.
3. A small dose kills in some days, producing an enfeebled action of the respiratory organs, and difficulty in locomotion (general trembling, and want of coordination of movement).
4. The effect is the same whether the poison is used by friction on the skin or injected into the subcutaneous cellular tissue; in the latter case a very much smaller dose will cause death.
5. In every case in which death was produced the animals seemed to die of asphyxia.
6. Spectrum analysis is a very good means of discovering very small quantities of thallium in any organs which may contain it.
7. Lastly, carbonate of thallium administered in very small doses may be tolerated, the effects a good deal resembling those of mercurial salts. Perhaps they may be employed with advantage where mercurials are indicated.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
WEST SOMERSET. [Conversazione.]	Clarke's Castle Hotel, Taunton.	Wednesday, Jan. 20, 1864.

PAYMENT OF SUBSCRIPTIONS: SPECIAL NOTICE.

MEMBERS who have not yet paid their subscriptions for the present year are earnestly desired to remit them to the General Secretary before the end of December. Their attention is directed to the following laws of the British Medical Association.

15. The subscription to the Association shall be One Guinea annually; and each member on paying his subscription shall be entitled to receive the publications of the Association of the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous. If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid.

10. The name of no member shall remain on the books of the Association, whose arrears extend over three years; but the omission of the name from the list of members shall not be deemed, either in honour or equity, to relieve any member from his liability for the subscriptions due for the period during which he has availed himself of the privileges of membership.

T. WATKIN WILLIAMS, *General Secretary.*

13, Newhall Street, Birmingham, December 1st, 1863.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 24TH, 1863.

R. PARTRIDGE, Esq., F.R.S., President, in the Chair.

SUPPOSED ABDOMINAL TUMOUR, BEING A STICK, TEN INCHES LONG, INTRODUCED PER ANUM. BY W. OGLE, M.D.CANTAB. (OF DERBY).

A LAD, aged 17, came under the care of Dr. OGLE, suffering from a tumour of the size of a pigeon's egg, just below the cartilages of the right ribs. It was stated to have been first perceived four months previously, when there were abdominal pain and jaundice. The nature of the "tumour," owing to the lad's reticence, was not diagnosed; but after being sixteen days in the hospital, he passed from the bowels a stick, ten inches long, and it was only after much cross-questioning that he was now induced to confess that he had himself introduced it *per anum*. The peculiarity of the case consisted partly in the moral obliquity of the youth, and partly in the fact of the stick having been introduced so high up into the bowel as to be quite across the abdomen.

UNUSUAL DIFFICULTY IN LITHOTOMY ARISING FROM GREAT DISTORTION OF THE PELVIS BY RICKETS.

BY HENRY THOMPSON, F.R.C.S.

In this case there was very considerable obstruction to the removal of a stone from the bladder, arising from the pelvis being extremely narrowed and deformed by

rickets. The author is not aware of any similar case in the records of lithotomy.

G. S., aged 4½, was first seen by Mr. THOMPSON, Aug. 20th, 1863. The symptoms of stone were severe. The child was much emaciated. A cicatrix existed in the perinæum, with a fistulous opening, showing the site of a median operation for stone performed by Mr. Erichsen about ten weeks before, on which occasion several portions of the outer layers were removed. The stone was grasped, but the forceps could not be removed with it; and owing to the condition of the child, it was deemed at that time prudent to desist, and postpone the attempt. The wound healed kindly up to a fistulous aperture; but diarrhoea came on, and the child left the hospital to recruit its strength.

At the time of its re-admission, Mr. Erichsen, being from home, authorised Mr. Thompson to do what he considered necessary with the case. The sound passed easily into the bladder, and a large stone was detected. The child was admitted into University College Hospital on August 31st, and was placed on the operating-table on September 2nd. Mr. Thompson made his incisions in the old track, and, introducing his finger, recognised the sacral promontory as remarkably prominent; beyond this the finger passed with difficulty flatwise, and touched the end of a stone lying in the bladder, which was altogether in the abdomen. There was no room to pass lithotomy forceps up by the finger. Finding, then, by placing the right hand on the abdomen, that the stone was easily felt there, and could be pushed down to the upper outlet of the pelvis, Mr. Thompson directed his assistant to maintain it firmly there by pressure, while, with a slender-bladed polypus-forceps, he extracted the stone, with some difficulty, entire. There was no bleeding of any consequence. Peritonitis set in next day, and proved fatal in three days.

At the *post mortem* examination, the pelvis was removed. This was exhibited to the Society. The deformity was very remarkable. In the dried bone, when the soft parts were taken away, only sufficient room existed for the stone to pass through in its long axis, the dimensions of the outlet only just exceeding the smallest diameter of the stone. The upper opening of the pelvis was obliquely caudate; the sacral promontory being within one-eighth of an inch from the left pubic ramus, and barely five-eighths of an inch from the right; from the pubic symphysis it was nearly seven-eighths of an inch. The stone was hard uric acid, of a flattish oval form. It was one inch and one-eighth in length, seven-eighths of an inch in breadth, and five-eighths of an inch in thickness.

A NEW TRUSS.

Mr. T. P. SALT (Birmingham) exhibited a new truss, invented and patented by himself, which, he considered, was possessed of the following advantages.

1. It afforded, in addition to the usual inward pressure of ordinary trusses, a second or upward (lifting) pressure always required for support of hernia, and attempted to be given by a variety of contrivances, the chief of which was the linen strap from behind fastened upon a peg at the lower part of the pad. This was the only truss which gave the lifting pressure in an unobjectionable manner.

2. By the peculiar mode in which the vertical or lifting springs were attached to the pads, no displacement of the pads could take place when once put in position; neither could there be any friction on the skin over the hernial openings.

3. The position of the pads might be with facility placed in relation to the median line of the abdomen; and, the spring across the abdomen having curves coincident with it, the spring of the truss lay more evenly against the body.

4. The back support, consisting of two pads instead of one—one placed above the horizontal line (spring), the

other below—gave greater stability to the front part on which the pads were suspended; hence this truss was more likely to remain *in situ*.

5. Every part of the patent truss was made by machinery, instead of by hand; hence any portion damaged or soiled could be rectified without the necessity of sending the truss to the instrument-maker.

6. The pads were an eminent improvement. The fringed edges of ordinary trusses, in which the cushions were made by stitching, were constantly chafing the skin; but by turning these cushions into a metallic capsule or clip, the edges and surface of the pads became exquisitely smooth and soft.

LIVERPOOL MEDICAL INSTITUTION.

NOVEMBER 12TH, 1863.

R. GEE, M.D., Vice-President, in the Chair.

Perforation of the Skull by a Poker. Mr. NASH shewed this specimen. The patient, a woman, came about two months ago to the Royal Infirmary as an out-patient; she was drunk, and had a scalp wound of apparently little importance. This was dressed with wet lint; but, instead of coming again next day, she went on drinking, and was brought a few days afterwards in a serious state. She had had rigors; her pulse was 150; she had convulsions and muttering delirium; there was unhealthy ichorous discharge from the wound of foetid odour, and a probe could be passed deeply in without difficulty. Mr. Bickersteth made a crucial incision, and found the perforation in the skull. The patient never became sensible, and gradually sank. The opening in the bone was situated about an inch below the left parietal protuberance, and was completely circular. The dura mater was adherent around the opening; and there was an abscess in the brain communicating with the left lateral ventricle. At the inquest, it was stated that her husband had struck her with a poker which had stuck in her skull; the poker was thin and tapering, and from the size of the hole must have entered to the extent of about an inch and a half.

Dr. NOTTINGHAM said in these cases, where the wound communicates with the lateral ventricles, there is generally a great flow of this fluid. The holes that are sometimes made in the skull may become of interest in a medico-legal sense from the slight nature of the external injury; thus a woman in Germany drove a nail into her husband's head; he died and was buried, and the cause of his death was never known until she confessed some time afterwards during an illness.

Mr. HODGSON stated that two patients in whom he had been interested had been taken to one of the hospitals; in each case depression of bone existed, and was not detected at first; in each case severe symptoms came on, and trephining had to be performed. He mentioned this to shew how necessary it is that these wounds should be carefully examined at first.

Dr. DESMOND said these specimens are curious in a mechanical point of view. A woman, in a case he had seen, punched a perfectly round hole in a man's head with a poker. He had seen another hole, perfectly round, from a blow with an iron pot.

Fracture of the Skull with Depression. Mr. LOWNDES shewed a specimen in which there was a mere fissure of the external table, while the internal shewed a considerable starred depression. The injury was said to have been inflicted by a blow with a tumbler.

Case of Poisoning by Belladonna. Mr. BAILEY related the case of a child two years old, whose mother had been using belladonna as an application to her breast; a portion of the extract mixed with water had been left in a cupboard, and it was supposed the child had taken some of this. The symptoms were those of delirium; the child muttered and mumbled, grasped at imaginary

objects, brought his closed fist to his mouth, champed his teeth as if eating, etc.; the skin of the body was red and hot; the pupils were dilated and did not contract with a strong light; the face was congested. He had been placed in bed about 6 P.M., and awoke screaming, and, as the mother thought, in convulsions. A neighbouring druggist gave an emetic and purge, neither of which had acted. Mr. Bailey ordered a warm bath and a scruple of carbonate of ammonia, which was given at 2 A.M., and caused free vomiting of slime and mucus. About 4 A.M. the child fell asleep, and, when seen next morning, was free from all unfavourable symptoms, and next day was quite well.

Mr. STEELE observed that, according to Dr. Fuller, belladonna could be given to children in larger doses in proportion than to adults.

Mr. HIGGINSON thought it a pity the stomach-pump was not more frequently used in these cases. A very simple apparatus only was needed; a common India-rubber pump, and an elastic catheter fitted to it, would answer admirably in the case of children.

Dr. SHEARER, speaking of the antagonistic effects of opium and belladonna, quoted a case in Edinburgh, where poisoning by opium was treated by the injection of atropine. Some of the symptoms had given way when the man died.

Dr. SKINNER said that in America this matter had been largely experimented on with remarkable success.

Dr. NOTTINGHAM said that, as far as the state of the pupil is concerned, the Calabar bean is the proper antidote to belladonna.

Dr. GEE said that at the Workhouse Hospital, the plan of treatment alluded to had been tried without effect. In one case a belladonna plaster caused symptoms of poisoning, and it was remarkable that in this case the patient always showed very great intolerance of opium.

Mr. HARRISON could not see that the fact of substances acting on the pupils in different ways was a sufficient cause for them to be considered antagonistic in every respect.

Diet Suitable after Child-birth. By H. LOWNDES, Esq. He said that a paper on the same subject had been recently read by Dr. Graily Hewitt. Mr. Lowndes read extracts from Celsus, Mauriceau, and a number of authors down to the present time, and shewed that the tendency in the most recent authorities was to revert to the severe regimen of Celsus. In his own practice he had for some years adopted a more nutritious diet; he generally gave a little wine or ale immediately after the delivery of the child, then tea, and perhaps gruel and toast, for the next twenty-four hours; next day a breakfast cup full of strong broth for dinner, on the following day a little chicken or chop, and then he allowed the patient to return to her usual diet with a little ale or wine. He strongly objected to the excessive administration of gruel, as a substance differing entirely from any of our usual articles of diet, and as tending to produce a relaxed state of the tissues, and giving that appearance which is often characteristic, the flesh pale and soft and moist, and the abdomen full of flatus. With the dietetic treatment he had indicated, varied a little according to the case, Mr. Lowndes thought he saw much less of those affections of the breast and nipple in which the suffering is out of all proportion to the actual lesion, and of those muscular pains that are so apt to occur when the patient begins to sit up. Even if labour were what it has been called, a great traumatic lesion, an immediate and long continued course of gruel and tea would not be justifiable, but most likely to lead to great evils; labour, however, he would rather look on as a great physiological process, differing little from the processes of defecation and micturition except in frequency of occurrence. These and also the phenomenon of sneezing would create great alarm if they were of rare

occurrence. He concluded with some remarks on the subject of puerperal fever, and on the secretion of milk as far as the question of diet affected them.

The CHAIRMAN said it was very pleasant occasionally to be reminded of what the old authors say on subjects of interest. If these opinions are not always valuable they are often expressed in a quaint and amusing manner.

Mr. STEELE agreed with a good deal in the paper, but took exception to what was said about gruel; if well made, it is a most valuable thing, but he did not think that in the North here it is so well made as in some other parts of the country. We must be guided in every case by the constitution; but he believed that more nutritious diet is now generally given. Stimulants certainly can be given with impunity, and a custom prevails here of giving a glass of cold ale immediately after delivery. In one case he found a patient taking a glass of porter and a chop the day after her confinement, and it did no harm.

Dr. SKINNER thought we could lay down no rules; we must temper the diet to each patient. He thought gruel a most valuable agent.

Dr. IMLACH agreed with the author of the paper that labour is no disease, and as a rule it requires no interference. He was taught in Edinburgh, when he was young, that labour was a disease, and likely to be followed by disease. He went to live in Kent, and tried to make his patients confine themselves to gruel; but they would not take it, and he used to find them eating chops and drinking porter. Here, he allows no gruel for the first week; the milk comes naturally, and there is much less tendency to inflammation of the breasts. Within the last twenty years there has been a great change in the treatment, more pure air, better food, etc. He did not, however, give stimuli. He believed ladies when well fed, were very much sooner independent of their nurses.

Mr. HAKES had not found the same difficulty in getting his patients to take gruel, which he thought very useful. Each case must be treated according to circumstances, but he would not press solid food upon the patient against her inclination.

Dr. VOSE said that once, when in the remote valleys of Westmoreland and Cumberland, he used to ask the people how they got on without medical aid, particularly in regard to midwifery cases; people wondered that he should ask. He found they had no midwives even; when a woman begins her troubles, they told him, they give her warm beer; if she is worse, more warm beer; but if that fails, then she "maun dee." So they gave stimulants from the first. One word in the paper read seemed to contain the gist of the matter; we must treat the patients according to "common sense."

Dr. BALMAN approved of the views brought forward in the paper generally. He questioned, however, the analogy between the act of micturition and that of labour. When there is exhaustion after labour we may use stimulants, but it is a question how long we should continue their use.

Mr. DENTON always gave gruel at first, but with a little brandy. As an example of what women may do with impunity in some cases, he remembered a person who did not wish it to be known that she had been confined. He met her at the door the day after delivery, and found she had been a long walk to market. She suffered no harm.

Dr. DESMOND said there is no doubt the great mass of women will recover whatever is done with them. Patients have been maltreated in every conceivable way, and yet get well. Certainly the tendency of late has been to give a better diet. In his early days, he was taught to give gruel in large quantities. He was now satisfied of one thing; and that is, that the lower the patient is fed the higher the milk-fever will run.

Correspondence.

IRIDECTOMY.

LETTER FROM WILLIAM BOWMAN, ESQ., F.R.S.

SIR,—I would willingly, if I am able, remove the difficulty that seems to press so much on the mind of "A Surgeon", as to lead him to repeat his question to me, "How comes it that, before the days of iridectomy, glaucoma was comparatively a rare disease?", whereas now it appears, he says, by the number of iridectomy operations reported in the journals, to be a frequent one.

First asking your readers to peruse my answer to his first letter (BRITISH MEDICAL JOURNAL, Nov. 28, p. 593), which, I think, was to the point, though apparently too brief, I now add this ampler explanation.

1. According to the view I maintain, glaucoma was not rarer then than it is now, for we are speaking of only seven years ago; its frequency was, no doubt, the same, whatever that frequency be, and we will say no more about "the corners of the street".

2. A large number, we cannot now tell how many, but probably a great majority of all the cases of glaucoma that actually occur in practice (that occurred then as now) were not then recognised as *glaucomatous at all*, on account of the vagueness and inaccuracy of our knowledge at that period. Thus the simple non-inflammatory glaucoma was merely "a form of amaurosis", that term so large, so comprehensive, as now to have hardly any scientific value; or it was "the failing sight of age"; and the inflammatory subacute and acute forms, together with other varieties occurring as complications of diseases, were all often confounded with affections of quite another type, under such common, and of course then improperly applied, names as "ophthalmia", "scleritis", "irido-choroiditis", "choroiditis", "retinitis", "arthritic inflammation", or more indefinitely "inflammation of the deeper tunics", etc. All these we now know may occur without any tension of the eyeball, without any glaucoma.

3. These inflammatory forms of glaucoma, thus confused with other forms of inflammation, I may incidentally say were constantly, to the great misfortune of the poor patients, treated too indiscriminately by bleeding, leeching, blisters, mercury, colchicum, opium, etc.—remedies ineffectual in glaucomatous disease, and of which, though some may be palliatives, the greater number are only too surely aggravations of the misery they are intended to relieve. I have formerly given them myself a hundred times, and am heartily thankful that the necessity for using them in glaucoma can never occur again. I am heartily sorry when I see that they have been given now, with the best intentions but the worst results, by practitioners who have overlooked the glaucomatous nature of the case, not being yet aware of the recent advances in knowledge, or who, being partially acquainted with these advances, reject an effectual remedy, infinitely less onerous to the patient than a course of mercury. The excuse formerly was, that we knew no better, we did our best, and hoped against hope, leaning on reeds that had constantly failed us in these glaucomatous cases, though they had often succeeded in others that we could not then distinguish from these. *But we know better now.* Iridectomy supersedes these severe measures in glaucoma. Those who reject it have to explain whether they still employ these unavailing remedies, or leave their patients practically untreated; and, if these be employed, whether they prove adequate now to arrest a disease against which they were formerly directed in vain. I assert, in the most explicit and positive terms which I can use (with only such qualifications

as most general statements require, and which may be understood by a reference to my former paper, *BRITISH MEDICAL JOURNAL*, October 11, 1862), that *iridectomy is as effectual a remedy for glaucoma as is any remedy for any disease of which the tendency is progressively, up to the moment when the remedy is applied, to destroy the integrity of the tissues in which it occurs.* Iridectomy acts by permanently lessening undue tension, and thus allowing the oppressed organ to recover, so far as it has not already suffered change of structure, under either long continuance of slight pressure, or great intensity of it for a shorter period.

4. "Glaucoma", in the old sense of the word (though then also often used with a vagueness betokening the want of exact knowledge of the real nature and history of the disease), meant generally that *last stage*, which we now know the inflammatory forms of glaucoma frequently, but not always, reach, where the pupil is widely dilated, the lens greenish yellow and freely exposed to view, the ciliary and muscular veins varicose, the globe stony hard, the sight utterly extinct. The "glaucoma" of our predecessors, and of ourselves up to the publication of Von Graefe's memoir in 1857, was this last stage reached by only a certain number, a minority, of all the diseases which we now call "glaucomatous".

5. Besides this last stage, we now include under the term glaucoma all the earlier stages of the inflammatory forms, various in character and frequently protracted, which may, but do not always, lead to this last stage, although they destroy sight; and we include, in addition to these, a considerable number of other non-inflammatory cases (called "simple glaucoma"), which seldom, if ever, cause the globe to assume those obvious and striking appearances of the old glaucoma, though they do terminate like it, if unchecked, in total blindness.

6. Thus, rightly or wrongly, the meaning of the term "glaucoma" has been greatly extended of late; and it now comprehends a family group of diseases, while formerly it meant only the destructive ultimate result of glaucomatous action presented in a certain number, but not all, of the cases of certain members of the group. All this may be easily gathered from various English notices of the subject, to none of which I refer with more pleasure than to Mr. Hulke's excellent recent paper in this *JOURNAL*. (See also my letter to Mr. Syme, *ante*, Nov. 7th.)

7. All the members of this group have certain characters in common; and therefore it is highly conducive to a right knowledge of them, and also to the *practical treatment* of them, that they should bear a common designation; and that of "glaucoma" (or "glaucomatous", as I prefer to call the entire group) having been employed by those who have mainly advanced our knowledge of them to its present standard, it will tend to clearness of thought and expression if we now limit the term to its modern sense. I need not say that every advancing science offers parallel instances of either restricted or expanded meanings of old words, accompanying corresponding modifications of the ideas they are intended to represent.

8. Lastly, let us not confuse ourselves or others by using the same word in two different senses within the same sentence, and argue as if the meaning remained the same. This is one of the most common fallacies, for the exposure of which a careful analysis of the meaning of some single word is oftentimes sufficient. I hope "A Surgeon" will now see how this matter really stands. The *old glaucoma* before the days of iridectomy was comparatively a rare disease, and it is so still. Moreover, by the use of iridectomy, if not by some better means perhaps to be hereafter discovered, it will certainly by degrees become rarer still.

The *modern glaucoma* was as frequent then as now, only it was not recognised in the greater number of its forms, being confounded with other types of disease.

The length to which this note has extended obliges me to defer till next week some remarks, which it will be my duty to make, upon Mr. Watton's letter in your last number. I am, etc., W. BOWMAN.

5, Clifford Street, December 8th, 1863.

DR. GRIFFIN AND THE SOUTHAMPTON BOARD OF GUARDIANS.

SIR,—Cordially agreeing with most of the remarks made by you relative to the letter of Dr. Griffin to the Southampton Board of Guardians, still, I think, there is a part needing explanation. You say, "We do not like to say a harsh word to Dr. Griffin in his distress; but we cannot help asking, why all this tender and pathetic appeal to the mercies of the poor's guardian angels? Has he not, and has not the profession, the power in its own hands in this matter? And how can a man reconcile it to his conscience to undertake duties, even the half of which, as he asserts, no man can perform?"

If you, Mr. Editor, will look at an early part of Dr. Griffin's letter, you will see he says that "it was only about a week before I was elected that the chief portion of the parish work fell into my hands, or I think I should have considered £150 a-year had better not be applied for." The truth is, Dr. Griffin, at the time of his election, was not aware of what he was about to undertake.

The facts are briefly these. Dr. Griffin had very lately entered into partnership; and almost immediately afterwards his partner died, leaving a son, not qualified, who is to enter into the partnership. Dr. Griffin was, therefore, according to his engagement, compelled in honour to accept all the appointments of the deceased to enable him to meet his engagements; and so he became a Poor-law medical officer. In a very short time, he found it impossible, conscientiously, to do his duty to the poor; and he determined to take steps to remedy the abuses of the present system. Unfortunately, illness prematurely brought matters to a crisis; and this he tells the Guardians in the first paragraph of his letter. "I commenced to keep an account of the amount of work I had to perform, with the intention, at the end of six months, of showing to your Board, of what I was sure you could not be aware, its enormity; in truth, the utter impossibility of any man to perform it."

You attach blame to Dr. Griffin for taking this appointment and retaining it. You say, "he has the power in his own hands"; the Guardians tell him to the same effect by their resolution, "that if he is dissatisfied on the terms on which he holds his appointment, he may tender his resignation of the same." But were he to adopt your and their advice, it would serve no good purpose; it would not amend the present system of medical relief, as another would take it, and the same system would be perpetuated. There is one medical man ready to do so; and if an advertisement were issued, many others would be found quite willing to take office, as £150 *per annum* would be considered a fine thing for a man to start practice with.

Dr. Griffin deserves credit, not blame, for the manly course he has pursued; too many would have pocketed the £150 *per annum*, and procured an assistant at about a fourth of that sum, and let him do the duties; and would not have asked the Guardians to make four appointments, and so cut down his salary. Dr. Griffin's case is, I fear, but an illustration of numerous others; but few Poor-law medical officers dare to make known their grievances; for, as a body, they are poor, and must take what the Guardians will give, or starve. We, therefore, must strike at the root of the evil, and endeavour to improve the present system of medical relief of the poor, which, as it now exists, is a disgrace to the nation.

I am, sir, etc., A POOR-LAW MEDICAL OFFICER.

SYPHON-TROCHAR AND HOOKED CANNULA FOR OVARIOTOMY.

LETTER FROM T. SPENCER WELLS, Esq.

SIR,—As I have received several letters lately from our associates and other medical men, asking for an account of the instruments which my experience has shown to be useful in ovariectomy, I send you the enclosed wood-cut of a syphon-trochar, with a hooked cannula, which I have found very useful in practice. By its use, we gain the following advantages.

1. Instantaneous escape of the contents after the cyst has been punctured. This is of great consequence, as the short time occupied in withdrawing a solid trochar from the cannula may permit some escape of fluid from a tense cyst between the cyst and cannula, and lead to an enlargement of the opening.

2. Complete protection (by withdrawing the point) from injuring or piercing the cyst involuntarily.

3. Secure compression of the opening in the cyst against the cannula, and a safe mode of drawing the emptied cyst from the abdomen by one instrument.

4. A convenient mode of carrying off the fluid without wetting the patient's clothes or bedding, and (by means of the India-rubber ball which forms part of the tube) of exciting some force of suction and ejection, and so cleaning the cannula or tube of any obstruction.

The drawing must render any account of the way in which the instrument is used unnecessary; but it must be stated that the artist should have drawn the cannula behind the hooks fully as large as the rim which receives the points of the hooks; for if the cannula does not completely fill the opening made in its introduction, escape of fluid between the opening and the cannula would not be effectually prevented.

Messrs. Weiss have made several of these instruments for me and my friends remarkably well.

I am, etc., T. SPENCER WELLS.

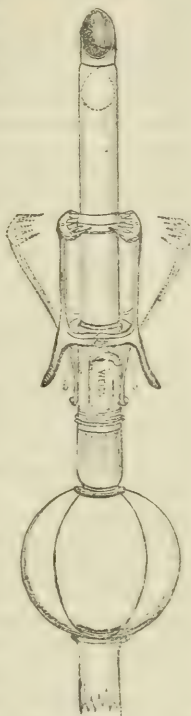
3, Upper Grosvenor Street, December 1st, 1863.

THE DEAF AND DUMB.

LETTER FROM WILLIAM PARKER, Esq.

SIR,—Your number of the 7th inst. contains a report from the Irish Commissioners on the Deaf and Dumb, wherein congenital and other minutiae of their state are particularised. As there are about 23,000 in the United Kingdom, and no knowledge of medical assistance having been afforded to them at any period, perhaps you will kindly ventilate these observations in your pages, especially as the following remarks have been published and concurred in.

"The absence of medical assistance to the deaf and dumb in infancy, and the present idea of intermarriage and deficiency of the organs causing deaf-mutism being so entirely conjectural and completely devoid of scientific interest, suggest the following brief plans for a knowledge of the cause and treatment.



"1. Registration of infants at birth, or month old, in all parishes, whether deaf or not. 2. If deafness is found at this period, no remedy is suggested; but if deafness come on afterwards, its detection is easy, and it probably arises from teething, scarlet fever, measles, or hooping-cough—diseases that are closely connected with the relative parts of the organs of hearing and speech. 3. At two or three years of age, the local treatment should consist of inflating detergent powders into the throat, or applying lotions to the diseased parts, and applying external revulsive means, together with appropriate general treatment and generous diet, united to equable atmosphere.

"The desirableness of the above views being made known to the general medical practitioner can scarcely be disputed, whilst the aurist only treats of deafness in children and adults."

By the united concurrence of the medical press, the legislature would be directed to institute the proposed inquiry, if it be not too late to do a kind action and cultivate a promising soil in our own flesh and blood.

I am, etc., WILLIAM PARKER.

Bath, November 9th, 1863.

FOREIGN BODY IN THE RECTUM.

LETTER FROM WM. ALLISON, Esq.

SIR,—In a recent number of the JOURNAL, Mr. Soper relates a case of fish-bone in the rectum, which reminds me of a traveller in this town, who apparently suffered great agony from rectum-pain.

On introducing my finger whilst he was making a sudden bolt to the other side of the bed, I managed to follow him with a hasty push of the finger as far as it could go; and, calling louder than he was bellowing, told him that my finger was fast, and that, if he would not let me extricate it carefully, a sharp substance would be thrust through his bowel, which substance was stuck into my finger. I felt some two or three sharp points, as if of glass. Just then, kneeling upon the bed, I introduced a finger of my left hand through the sphincter muscle, to dilate it until I could push it on the opposite side of the substance. With the tip of the right side finger, the apex of the substance was pushed off and downwards, so as to bring its lower extremity towards the palm of my hand; and, on withdrawing both fingers together, the prickly substance was brought away sticking to each finger, and proved to be about half the backbone of a fowl. Fortunately, the man was wriggling about upon his face, instead of beating me upon my head, as he acknowledged he would have done, if he had been upon his back. I thought he must have swallowed the bone after having taken too much wine; but he denied having been intoxicated.

These cases show how some men bolt their food without mastication—men who, if asked the question, would probably say they always chewed their food very carefully.

I am, etc., W. ALLISON.

November 18th, 1863.

PRIVATE SECRETARY OF THE NEW GOVERNOR-GENERAL OF INDIA. Sir John Lawrence, the new Governor-General of India, has appointed Dr. Charles Hathaway to be his private secretary. Dr. Hathaway has long been recognised in the official blue books as an active inspector-general of the prisons in Punjab. In October 1861, in consequence of the fatal outbreak of cholera among the soldiers at Meean Meer, he was appointed special sanitary commissioner; and most of the practical suggestions contained in his report with respect to ventilation have already been adopted, by order of the Commander-in-Chief, in the barracks and cantonments of India.

Medical News.

APPOINTMENTS.

GRANT, J., M.D., appointed Medical Officer and General Superintendent of the Dundee Royal Infirmary.
 JONES, Walter, Esq., appointed Junior House-Surgeon to the Queen's Hospital, Birmingham.
 TANNER, John, M.D., elected District Surgeon of the Royal South London Dispensary.
 TAYLOR, James, L.F.P. & S., Glasgow, appointed Surgeon to the National Model Schools, Bailieborough, co. Cavan.

ROYAL NAVY.

HARAN, T. J., Esq., Surgeon (additional), to the <i>Curacoa</i> .	
BROWNLOW, Thomas D., M.D.	
CANNON, Richard, Esq.	} Acting Assistant-Surgeons, to the <i>Victory</i> , for Haslar Hospital.
HOLLINSWORTH, John McK., Esq.	
SEDGWICK, Henry D. M., Esq.	
WARD, Cornelius H., Esq.	
WOOD, Henry, M.D.	
GOODALL, Alexander, M.D.	} Acting Assistant-Surgeons, to the <i>Royal Adelaide</i> , for Plymouth Hospital.
MCDONALD, Alexander, M.D.	
MILNE, James G., Esq.	
SMITH, James D., Esq.	
TREVAN, Matthew, Esq.	

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers).—

FLETCHER, W., M.D., to be Assistant-Surgeon 2nd Derbyshire R.V.
 To be Honorary Assistant-Surgeon:—
 KNIGHT, G. L., Esq., 14th Surrey R.V.

BIRTH.

CURGENVEN. On December 2nd, at 11, Craven Hill Gardens, W., the wife of J. Brendon Curgenven, Esq., of a son.

MARRIAGE.

STEVENSON, Henry, Esq., of Norwich, to Ann Emilia, eldest daughter of William Self, Esq., Surgeon, of Richmond Road, Hackney, on November 25th.

DEATH.

FLETCHER, John, Esq., Surgeon, at Feltham, aged 82, on Dec. 2.

TOYS FOR SICK CHILDREN. The Hospital for Sick Children in Great Ormond Street has received a valuable present of toys, sent by command of the Queen; also a similar present from her Royal Highness the Princess Helena and his Royal Highness Prince Alfred.

BEQUESTS. Charles Rawlings of Chelsea, has made the following charitable bequests:—To the Chelsea, Brompton, and Belgrave Dispensary, £500; City of London Truss Society, £500; Blind Institution, Euston Road, £200; and Westminster Hospital, £500.

NORTH STAFFORDSHIRE MEDICAL SOCIETY. William Henry Folker, Esq., has been elected president; James Yates, Esq., treasurer; and Ralph Goodall, Esq., honorary secretary. Professor Allen Thomson was elected one of the vice-presidents of the Philosophical Society of Glasgow for the ensuing year.

GLASGOW MEDICAL SOCIETY. The fiftieth annual meeting of this Society was held in the Faculty Hall, St. Vincent Street, on Tuesday, December 1st, when the following office-bearers were elected for the session 1863-64:—*President*, Dr. James Stewart; *Vice-Presidents*, Dr. A. M. Smith, Dr. G. H. B. Macleod; *Treasurer*, Dr. Perry; *Secretaries*, Dr. W. R. Hatrick, Dr. MacLaren.

GERMAN HOSPITAL. His Royal Highness the Prince of Wales has become one of the protectors of this charity, in conjunction with Her Majesty the Queen and the King of Prussia, in place of the late Prince Consort. The anniversary dinner of the institution will take place at the London Tavern, on February 17th next, when the Right Hon. the Earl of Carnarvon has consented to preside.

JUNIOR MEDICAL SOCIETY OF LONDON. At a meeting of the Council held on November 17th, the following officers were elected:—*President*, Mr. S. G. Freeman (St. George's Hospital); *Treasurer*, Mr. Duke (Guy's Hospital); *Secretaries*, Mr. F. H. Gervis (St. Thomas's Hospital); Mr. Murray (King's College).

THE LICENSE IN MEDICINE OF THE UNIVERSITY OF DUBLIN. We understand that the Board of Trinity College have had lately under their consideration certain alterations in the regulations at present in force, having for their object to facilitate the granting of the Licence in Medicine of the University to Licentiates of the Royal College of Surgeons in Ireland. (*Dublin Med. Press*.)

AMERICAN INDIANS AND NEGROES. In his chapter on *Race*, Dr. Hammond furnishes some interesting facts respecting the American Indian and the Negro. His own observations have convinced him of the "manifest inferiority of the American Indians to the whites in muscular strength." And of the negro he states that, "by transferring him to a temperate climate he has positively lost rank physically."

EFFECTS OF INDISCRIMINATE ENLISTMENT. "The present rebellion," says Dr. Hammond, "has opened our eyes to the evils flowing from the indiscriminate enrolment of men unfit, by reason of physical infirmities, to undergo the hardships incident to a soldier's life." And he states, that in a hospital under his charge in the early part of the war, containing six hundred patients, he discovered at one time, on inspection, fifty-two cases of inguinal hernia.

THE FEDERAL ARMY MEDICAL SERVICE. The government of France has made large advances in the recognition of the rights of the medical department of its army. The British Government was forced to a recognition of the value of the medical services to the army of the Crimea, and successful efforts were made to place its medical department on a more independent footing. Our own Government seems less disposed than any of its contemporaries to listen to the voice of reason and experience. The medical department of its army remains where the present war found it, entirely subordinate to other authorities. In its present position it may become the sport of every political trickster, and be perverted to the accomplishment of partisan purposes. (*American Medical Times*.)

SOCIETY OF ARTS. The next award of the Swiney Prize (a silver goblet of the value of £100 sterling, containing gold coin to the same amount) will be awarded on January 20th, 1864, to the author of the best published treatise on jurisprudence. The sum of £70, placed at the disposal of the Council by Sir W. C. Trevelyan, Bart., with the Society's medal, is offered for the discovery of a process for preserving fresh meat better than by any method hitherto employed, applicable to the preservation of meat in countries where it is now almost valueless, so as to render it an article of commerce and available for stores on ship-board. Specimens, with detailed accounts of the process employed, must be sent to the Society. The Society also offers medals for communications or discoveries in relation to certain specified subjects, 114 in number, among which are the following:—The manufacture of a brilliant green colour, not containing arsenic, copper, or other poisonous materials. The manufacture of chlorophyll from grasses, suitable for dyeing silk and other fabrics of a green colour. The manufacture of green dyes from coal or wood tar. A thoroughly decolorised blood-albumen, or any economic and efficient substitute for egg-albumen for calico-printing. A new, large, and economic use for the yolks of eggs, with particulars of the mode of preparation and preservation. An account of the methods at present in use in the various coal-mining districts for ventilating and lighting the mines, with suggestions for their improvement. An improved diving-apparatus, in which

divers may work free from the influence of great pressure, and at greater depths than by means of the diving-bell, helmet, or other existing appliances. The best chemical and assay balance, suitable for the use of students and experimentalists, which will (with 600 grains in each pan) show a difference of .005 or less: to be sold at a moderate price. The best and cheapest form of spectroscope. The best and cheapest form of dialysing apparatus, capable of being packed in a small compass, but of sufficient size to aid the country practitioner in the detection of poisons and adulterations, and in the preparation and purification of salts and drugs. A more economical process of obtaining oxygen gas than any in present use. The discovery and introduction into this country of any new edible root useful as food for man or cattle, and capable of extensive and improved cultivation. A means of rendering seaweeds generally available as a wholesome vegetable food on board ship. The introduction into commercial use at a moderate price of the essential oils shown at the late International Exhibition from Australia, or of any other new essential oil likely to be useful in medicine or the arts.

ROYAL SOCIETY. The anniversary meeting of this society was held at Burlington House on Monday, November 30th, when the officers and council for the ensuing year were elected as follows:—*President*, Major-General Edward Sabine, R.A., D.C.L. LL.D.; *Treasurer*, W. Allen Miller, M.D., LL.D.; *Secretaries*, William Sharpey, M.D., LL.D., and George Gabriel Stokes, M.A., D.C.L.; *Foreign Secretary*, Professor William Hallowes Miller, M.A.; *Other Members of the Council*, James Alderson, M.D., George Busk, sec. L.S., Colonel Sir George Everest, C.B., Hugh Falconer, M.A., M.D., John Hall Gladstone, Ph.D., Joseph Dalton Hooker, M.D., Henry Benze Jones, M.A., M.D., Professor James Clerk Maxwell, M.A., Professor William Pole, C.E., Archibald Smith, M.A., Professor Henry J. Stephen Smith, M.A., the Earl Stanhope, P.S.A., D.C.L., Professor James Joseph Sylvester, M.A., Thomas Watson, M.D., D.C.L., Professor Charles Wheatstone, D.C.L., and Rev. Professor Robert Willis, M.A. At the same time medals were presented to Professor Sedgwick for his observations and discoveries in geology; to the Rev. M. J. Berkeley, for his studies in botany; and to Mr. J. P. Gassiot, for his researches in electricity.

APPOINTMENTS IN INDIA. Dr. A. C. Macrae, has been appointed surgeon to his Excellency the Viceroy and Governor-General of India, and has left Calcutta to join his excellency at Lahore. Dr. Beatson, hitherto officiating as surgeon to the Governor-General since his departure from the presidency to the upper provinces, succeeds to the civil surgery of Simla. The Governor of Bombay has appointed Dr. Forbes a commissioner, with instructions to devote his exclusive attention to questions regarding the improvement and extension of the cultivation of cotton and the invention and manufacture of cotton-cleaning machinery, on a salary of 1,600 rupees per month.

UNIVERSITY OF CAMBRIDGE: DEGREE OF MASTER IN SURGERY. The questions below are the first of their genus put in an English University. The examination appears to have been very searching and practical. *Principles and Practice of Surgery.* November 23, 1863. 1. Explain the different modes in which mortification of a limb may be induced, and state under what circumstances you would recommend amputation. 2. What are the microscopical character of pus-cells? Wherein do they differ from those of cancer-cells? How are pus-cells probably formed? What are the indications of acute suppuration deep in a limb, the thigh for instance? 3. Give a description of the aspect presented by a case of glaucoma when fully developed. What ophthalmoscopic appearances have been observed in glaucoma, and what treatment adopted? 4. How are

calculi formed in the urinary organs? What are the symptoms of stone in the bladder. 5. What are the symptoms and treatment of wounds in the chest implicating the lung? 6. In what parts of the clavicle and tibia is fracture most frequent, and why is it so? In what direction does the displacement at the fracture usually take place, and the reason for this? 7. State the process of formation and the diagnostic symptoms of a popliteal aneurism. What accidents may follow after the ligation of an artery for aneurism, and upon what principle does compression effect a cure? 8. What position does the limb usually assume in inflammation of the hip-joint? In what position would you place it to give relief, and on what principle? What symptoms indicate that ulceration of the cartilages is taking place? 9. Mention the modes of treatment which have been recommended for asphyxia from drowning. 10. The symptoms and treatment of fracture of the neck of the thigh-bone. The causes of the frequent failure of bony union. What changes take place at and about the fracture? 11. Explain the chief causes of retention of urine in the male and female, and state the treatment required in each case. 12. What symptoms would lead you to suspect the existence of cancer of the rectum?—*Midwifery.* November 23, 1863. 1. Mention some of the cases demanding the induction of premature labour, and the chief methods of inducing it. 2. What are the indications of extra-uterine pregnancy? In what parts is the fœtus likely to be lodged? 3. Give the symptoms of rupture of the uterus. 4. How is hæmorrhage prevented in natural labour? What precautions would you take in attending a patient in labour who on former occasions had suffered from flooding? 5. What are the symptoms and treatment of puerperal peritonitis, and what the morbid appearances observed after death? 6. What changes in the breasts are indicative of pregnancy? 7. What is the condition of the fœtus at the sixth month?—*Practical and Surgical Anatomy.* November 24, 1863. 1. What are the position and the connections of the superficial veins in front of the arm? On which of them is venesection usually performed? With what possible danger to the brachial artery? What superficial nerves may be divided according to the vein selected? How is the vein, usually selected, separated from the brachial artery? Since a high division of the brachial artery may occur with a superficial course, what precaution is always to be taken by the operator? 2. How are the arteries of the forearm distributed to the hand and fingers? What is the practice when a deep wound in the palm is accompanied by much hæmorrhage? If the vessel that bleeds be discovered, how ought it to be tied? What other means to control the hæmorrhage may be employed? 3. By attending to what superficial marks is the course of the femoral artery understood? When the artery and vein have passed under Poupart's ligament, by what structures and fasciæ are they covered? How are the femoral sheath and femoral canal formed? Where does the Saphæna vein fall into the femoral? What is the relative position of the artery and vein within the sheath at its upper part? When it has been crossed by the Sartorius muscle, how do the relations of the artery differ? 4. In what different conditions may inguinal hernia exist? Define the direct and the oblique hernia. What is the guide to the internal border of the internal ring? How are the epigastric artery and cord generally placed when a protruded viscus is passing through the ring? How is the inguinal canal formed? 5. What are the three stages of the subclavian artery? At what point does it end in the axillary artery? How do the relations of the artery differ on the left side and on the right? How does the subclavian vein correspond to the artery? What nerves are interposed between them?—There was, in addition, an examination *visà voce* in each subject; that in anatomy and pathology was held at the

anatomical school; and that in clinical surgery at Adden-brooke's Hospital, the candidates being requested to examine and report upon selected cases which they had not before seen.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY.....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopedic, 2 P.M.
FRIDAY......Westminster Ophthalmic, 1.30 P.M.
SATURDAY....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M. Mr. I. Baker Brown, "On the Treatment of Hypertrophy and Ulceration of the Os Uteri."—Asiatic.
TUESDAY. Statistical.—Pathological.—Ethnological.
WEDNESDAY. Society of Arts.—Geological.
THURSDAY. Harveian Society of London, 8 P.M. Dr. W. Tilbury Fox, "On Porrigio."—Chemical.—Zoological.—Royal.—Antiquarian.—Linnean.
FRIDAY. Western Medical and Surgical Society of London, 8 P.M.
SATURDAY. Association Medical Officers of Health.

POPULATION STATISTICS AND METEOROLOGY OF LONDON—DECEMBER 5, 1863.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week.....	{ Boys .. 941 } 1795	1876
	{ Girls .. 854 } 1867	1460
Average of corresponding weeks 1850-62	1867	1460

Barometer:
 Highest (Fri.) 30.183; lowest (Wed.) 28.990; mean, 29.710.
Thermometer:
 Highest in sun—extremes (Sat.) 74.8 degs.; (Tu.) 59 degs.
 In shade—highest (Th.) 54.2 degs.; lowest (Mon.) 29.8 degs.
 Mean—42.1 degrees; difference from mean of 43 yrs.+0.5 deg.
 Range—during week, 24.4 degrees; mean daily, 14.3 degrees.
 Mean humidity of air (saturation=100), 85.
 Mean direction of wind, S.W.—Rain in inches, 0.78.

TO CORRESPONDENTS.

*. All letters and communications for the JOURNAL, to be addressed to the Editor, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

ERRATUM.—In Dr. Charles Taylor's letter on Iridectomy, published last week, he was, through error, designated House-Surgeon Nottingham Eye Dispensary, instead of Honorary Surgeon.

IGNORAMUS.—You should apply to Mr. Upton, at the Apothecaries' Hall. The Society alone can give you the information you desire.

F. W. P.—A subscription in behalf of Dr. Fraser and Mr. Andrews has already been started. We shall be glad to take charge of any sums, and forward them to the proper quarter.

Mr. NAPPER's letter shall appear next week.

We accidentally omitted the name of Dr. John Cochrane as being one of the medical men on the Town Council of Edinburgh.

THE LATE MR. ANCELL.—It should have been stated in the biography of Mr. Ansell, published in the JOURNAL of November 28th, in speaking of his connection with medical politics, that he was joint-secretary to the "National Association of General Practitioners", in conjunction with Mr. James Bird. The names of "Bird and Ansell", indeed, appeared together in all reports and other documents relating to the proceedings of the Association.

M. MARVILLE'S EAR-COVERS (Couvre-Oreilles).—M. Marville has invented a very ingenious elastic caoutchouc covering for the Ear. The covering takes admirably the shape and form of the ear, is very readily applied and readily removed, and cannot fail to be of much service in all those cases in which such a covering is required for the organ.

A MEMBER is referred to the JOURNAL for November 21st, 1863, page 568, column 1. The M.D. list has not yet been made public.

IRIDECTOMY.—SIR: What we want in the matter of iridectomy, is a report of fifty or a hundred cases of the operation and its results, faithfully related, as practised at some public institution. I do not think that the publication of a few isolated, and I suppose I may conclude successful operations observed in a man's practice, can give us any fair idea of the real value of the operation.

When a new operation of this kind is introduced into surgery, which is not generally accepted by surgeons, and when principles are not easily understood, it is necessary that the uses of it should be impressed upon the profession by clinical proofs of the character above referred to.

December 8th, 1863.

I am, etc.,

QUERY.

THE MARTIN MEMORIAL.—A correspondent writes:—

"I highly approve of your correspondent's suggestion as to a Memorial Scholarship at the College, to commemorate my much esteemed friend Peter Martin's noble exertions in that, as well as many other good causes. Peter Martin was much devoted to the College at Epsom, and worked very hard for it in all ways. I may safely say that, mainly through his instrumentality, the College benefited to the extent of nearly £3000! I should indeed much desire to have something at the College to perpetuate the name of so noble a friend."

COMMUNICATIONS have been received from:—Mr. H. COLLEY MARCH; Mr. J. WINDSOR; Mr. J. H. SHEPPARD; Mr. WILLIAM EDDOWES; Dr. C. TAYLOR; Mr. CURGENVEN; Dr. COCHRANE; Mr. T. P. TEALE, JUN.; Mr. B. E. BRODBURST; Mr. RICHARD GRIFFIN; THE HON. SECRETARIES OF THE HARVEIAN SOCIETY OF LONDON; Mr. PRANKERD; THE REGISTRAR OF THE MEDICAL SOCIETY OF LONDON; Dr. MERVON; Dr. HATRICK; Mr. WILLIAM BOWMAN; Mr. GARRAWAY; THE REGISTRAR OF THE MEDICAL COUNCIL; Mr. W. JONES; Mr. EDWARDS; and Mr. FITTOK.

ADVERTISEMENTS.

Horological Productions.—

"Ranged around the base of the clock were the Watches which Mr. Benson exhibited, and which have been universally admired for the beauty and elegance of the designs engraved upon them. The movements are of the finest quality which the art of horology is at present capable of producing."—*Illustrated London News* Nov. 8, 1862. Chronometer, duplex, lever, horizontal, repeaters, centre seconds, keyless, split seconds, and every description of watch, adapted to all climates. Benson's Illustrated Pamphlet on Watches (free by post for 2 stamps) contains a short history of watch-making, with prices, from 3 to 200 guineas. It acts as a guide in the purchase of a watch, and enables those who live in any part of the world to select a watch and have it sent by post. Prize Medal and Honourable Mention, Classes 33 and 15. J. W. BENSON, 33 and 34, Ludgate Hill, London. Established 1749.

Watch and Clock Maker by Special Warrant of Appointment to H.R.H. the Prince of Wales.

Price's Glycerine, its Uses and

Purity. See "De la Glycerine, de ses Applications à la Chirurgie et à la Médecine," by the eminent French Surgeon, M. Demarquay, pp. 240. Paris: P. Asselin. 1863. Or, "On Glycerine, and its Uses in Medicine, Surgery, and Pharmacy." By Dr. W. Abbotts Smith. London: H. K. Lewis.

NOTICE.—The first number of a New Series of the MEDICAL

CIRCULAR (Vol. 21th) will be sent on Wednesday, January 6th, 1864 to every Member of the Profession whose name appears in the Medical Directories for England, Scotland, and Ireland. The intention of this large issue of the Journal is to draw attention to its many improvements, in size, in paper, and in the arrangement of its contents, which, under new Editorial management, will be of a more practical character, and better adapted to the requirements of the busy practitioner than heretofore.

Advertisements on this occasion cannot be received later than Saturday January 2nd.

OFFICE: 20, KING WILLIAM STREET, STRAND.

Lectures

ON

ORTHOPÆDIC SURGERY.

BY
BERNARD E. BRODHURST, F.R.C.S.,
OF ST. GEORGE'S HOSPITAL, AND THE ROYAL
ORTHOPÆDIC HOSPITAL, ETC.

LECTURE IV. ON CURVATURES OF THE SPINE. (Continued.)

Scoliosis.

Scoliosis, or Lateral Curvature of the Spine, is that distortion in which the vertebræ deviate, as the term implies, in a lateral direction away from the mesial line of the trunk.

This affection may be divided into two stages, or periods; namely, first, *incipient curvature*; and secondly, *confirmed lateral curvature*.

It is important that these terms should be rightly understood; and I would, therefore, define them thus. Incipient curvature is removable in the horizontal position, either by slight lateral pressure or even by throwing certain muscles into action; while a confirmed curve requires long-continued mechanical means to effect the same object.

The *causes of scoliosis* are various. They are debility, general or local, rachitis, thoracic disease, obliquity of the pelvis, etc. Debility is, without doubt, the most common cause of this affection. It shows itself in various ways. Thus, muscular debility during convalescence, and weakness of the ligaments during too rapid growth, are the most frequent causes of this common affection. Let us take, for instance, the case of a child whose health has been rendered delicate from whatever cause. If it be treated in the same manner as a stronger companion, some irregularity of form will probably develop itself; but the particular form of distortion will depend mainly on the habits of the child. For instance, if the child stand or walk much, it is probable that the internal lateral ligament of the knee-joint will yield, and give rise to genu valgum; and it is probable that this distortion will be followed by yielding of the ligaments of the ankle-joint, and of those in the sole of the foot—valgus. And let us suppose, moreover, that, in consequence of resting too much on one leg, as is very common with such children, the ligaments of that extremity have yielded more than those of the other. Virtually, that leg is shorter than the other; and, therefore, both feet resting on the ground, the pelvis necessarily becomes oblique to accommodate itself to the difference in length of the extremities. But an oblique pelvis must give rise to spinal curvature, as will be explained farther on. Fig. 6 was drawn from such a case.

The child was 12 years of age. She habitually stood on the right leg. The prominent features of the case may thus be described:—genu valgum much more on the right than on the left side; right side of pelvis half an inch lower than the left; right

lumbar curve, left dorsal curve; right shoulder three-fourths of an inch lower than the left.

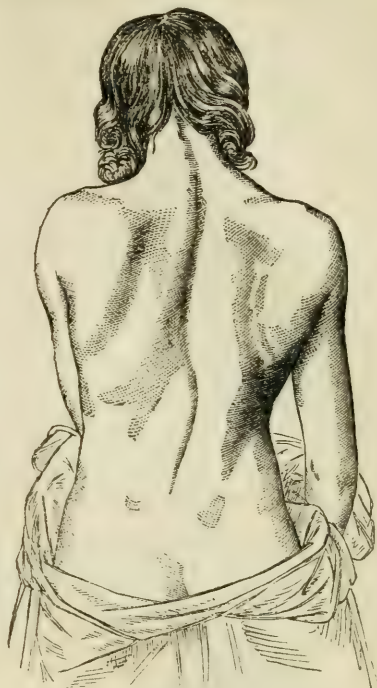


Fig. 6.

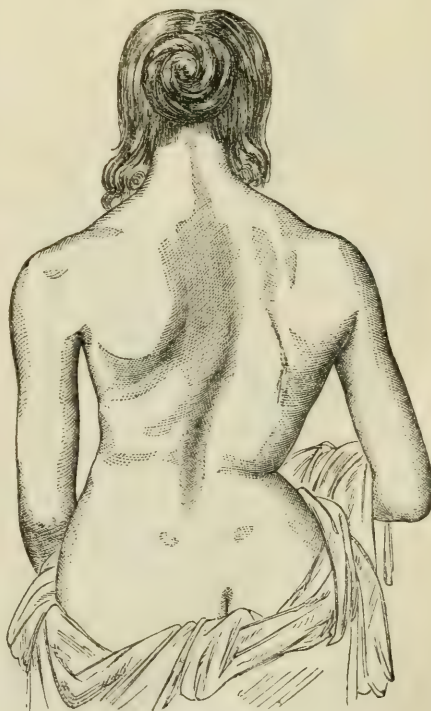


Fig. 7.

I may here mention, that all the figures which I shall have to use, have been taken from drawings

made by Mr. Bagg with the camera lucida; and that they have in no instance been exaggerated or modified; but that they are true, and exemplify well the nature of the several affections which they are intended to represent.

Fig. 7 was taken from a young person, 16 years of age, who, from overgrowth, had become feeble. The spinal distortion had been four years in forming. She habitually stood on the right leg.

Those who are feeble, whether from overgrowth or during convalescence, constantly change their position while standing; so that they rest for a short time only in one position and then change it for another—from both feet to one foot, for instance, and back again. And it is found that it is habitually the right foot in some cases, and in others the left foot, which has, in this way, to bear very frequently almost the entire weight of the body, until, at length, it becomes more natural to stand on one leg only, than fairly on both. It becomes so natural to do this, that it is done unconsciously; and until it is pointed out to her, the patient is frequently not aware of the habit. It was so in the case from which Fig. 7 was taken. She denied it until it was pointed out to her three times in about as many minutes.

It may be said that debility alone will not cause a spinal curve; but that there must be superadded bad habits of standing or sitting, which shall occasion obliquity to the pelvis and a primary lumbar

whom the preceding figure was taken (Fig. 8), and this is a form of curvature which commonly begins during convalescence; and commencing as a dorsal curve, it shows that it does not depend on obliquity of the pelvis nor on any affection of the lower extremities.

Every distortion is produced by a special cause; and it only requires attention to discover the cause. Scoliosis is seldom hereditary; when it is hereditary, it is due to rachitis, or to malformation of the spinal column itself, or to nervous irritation.

Paralysis of one side of the trunk always gives rise to lateral curvature of the spine; the healthy muscles drawing the spinal column away from the mesial line. And the length of the curve will depend on the paralysis; it may be a single curve, all the muscles of one side being paralysed; or it may occupy a part of the column only. After amputation at the shoulder, the latissimus dorsi, etc., become useless, and, therefore, atrophic; and, in consequence, the opponent muscles exercise undue power on the spinal column, and curve it in the direction of their own force. Such had occurred in the case from which Fig. 9 was taken. In this

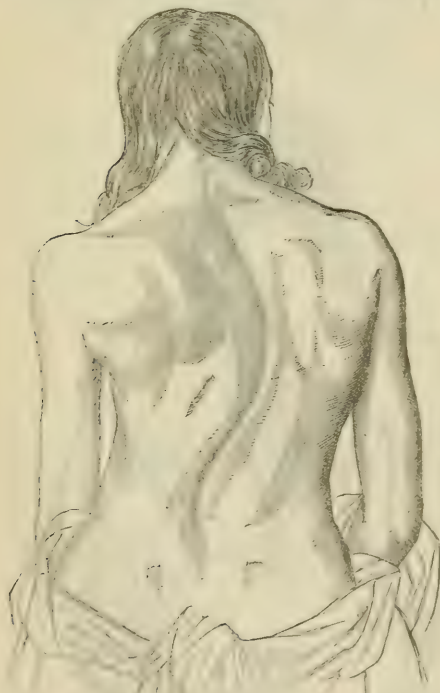


Fig. 8.

curve. These habits to which I have alluded, depend on debility, however; and, therefore, it is right to speak of debility as the cause of these distortions. But just as cyphosis is induced by debility, so debility will induce scoliosis. It may commence as a dorsal curve, as was the case with the patient from

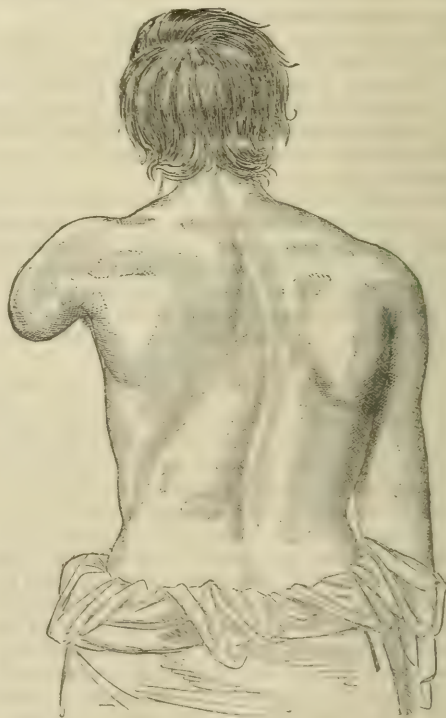


Fig. 9.

instance, however, the muscles were very powerful, and produced consequently more than the usual effect.

It has already been said that the particular form of distortion depends on the habits of the individual. The following figure was taken from a delicate young girl, 16 years of age, who habitually carried a child on the left arm. This gave rise to a left dorsal curve, as is shown in Fig. 10; and Fig. 11 shows the reverse of this distortion. Here, in an equally

weak condition, the right arm was used to carry the child.
And whether debility be local or general—whether



Fig. 10.

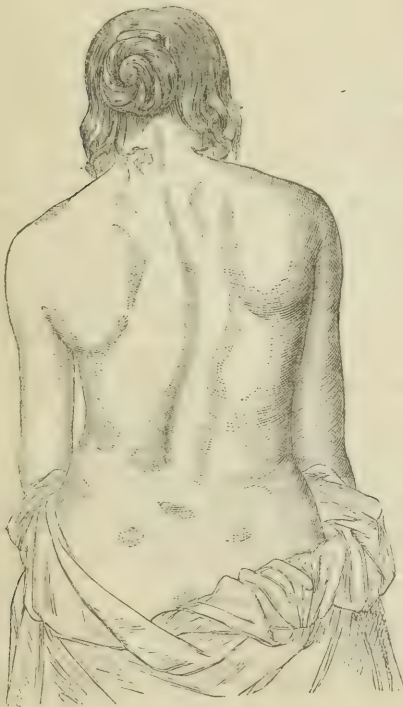


Fig. 11.

it be induced by impaired health or by diminished power of the muscles of the back, for instance—curvature may be induced equally, when the conditions are such as shall give rise to it.

It is probably well known that the muscles of the back of those who wear stays are not red and firm, but that they are, for the most part, pale and weak, and frequently atrophic and indistinct. The want of development which is thus occasioned conduces notably to the formation of lateral curvature of the spine; and, consequently, in those countries where stays are worn, and especially in the stay-wearing class, spinal curvatures are frequent; whereas, in the countries and communities where these are not worn, spinal curvature is much less frequent. Dr. John Gregory has, however, almost exhausted this part of the subject.

It will, perhaps, be said that debility of the muscles of the trunk being induced equally on both sides, there is no reason why lateral curvature of the spine should follow. It should be remembered, however, that in its normal condition the spinal column deviates slightly from the perpendicular line of the trunk. Even at birth this deviation is frequently observed; but later it becomes more marked, as the right or the left hand are habitually used; the employment of the muscles of one side or the other being sufficient to determine the mode of deviation. And it is only because those who have constantly worn stays are, for the most part, exempt from manual labour, that confirmed lateral curvature is not much more frequently met with in this class than is at present the case. The effort to be the spine erect is great in those who have discontinued the use of stays, and in these spinal curvature is readily induced.

Also, through the use chiefly of one arm, certain trades very commonly give rise to lateral curvature of the spine. Hence, tailors, shoemakers, compositors, dressmakers, embroiderers, needlewomen, and others, are especially prone to this distortion. But, perhaps, nurses who always carry the child on the same arm, suffer more frequently from this distortion than any other of these classes.

Again, spasmodic action of the muscles of the back, neck, and shoulder, occasionally gives rise to scoliosis. This is very rarely found to exist at birth, but it is occasionally met with, together with other manifestations of morbid action.

In the anencephalous and the hemicephalous infant, every variety of distortion of trunk and limb is to be found. And in the same way, distortions are seen, together with hydrocephalus and hydro-rachis. Irritation is, however, for the most part, much more limited in extent; and thus a set of muscles only may be retracted—as, for instances, in torticollis, talipes, strabismus, etc. These and other forms of muscular retraction exist, both as congenital and non-congenital distortions; they are each induced by a like cause, and they differ only in degree and form.

When the muscles of one side of the back are alone affected, scoliosis results; but when both sides are affected, lordosis is produced. Congenital curvatures are sometimes excessive in degree; so that the trunk may be reduced to two-thirds of its normal height. Fig. 12 is taken from one of the most remarkable cases of spasm that I remember to have witnessed. In this instance, there were torticollis and

scoliosis to so great an extent, that it was difficult, and even impossible during more than the shortest period, for the patient to remain upright.



Fig. 12.

After some duration of spasmodic action, loss of power, partial or complete, may ensue.

Obliquity of the pelvis, however induced, whether by hip-joint disease, by rachitic curves of the tibia or femur, by genu valgum, or other cause, is a very common occasion of lateral curvature of the spine.

WISDOM AND KNOWLEDGE. "With all becoming deference," says Dr. Latham, "to those who so loudly trumpet forth the praises of knowledge, and fright the trembling student with a portentous array of the wonderful things he has to learn, I would venture to crave some little regard for what is not so much as named by them, but what is pre-eminently more important than knowledge itself. I mean wisdom, as a thing distinct from knowledge, but not opposed to it; requiring, indeed, knowledge to work upon, but taking care to proportion that knowledge to the real end which itself (wisdom) has in view. I marvel that this wisdom is not enumerated among the ingredients of the physician's character, since it is conspicuously the chief of all." "If we content ourselves," says Harvey, "with the observations of others, the sprightly edge of our own wit will languish, and we extinguish the lamp which they lighted to our hands. It is those who follow nature's conduct with their own eyes (sometimes through a perplexed yet faithful tract) who attain the highest pitch of truth." "Let us blush," he observes, "in this so ample and wonderful field of nature, where performance still exceeds what is promised, to credit other men's traditions only. Nature herself must be our adviser. The path she chalks must be our walk. While we confer with our own eyes, and take our rise from meaner things to higher, we shall at length be received into her closet secrets. For nature being divine and perfect, is always consonant to herself."

Original Communications.

ADDITIONAL OBSERVATIONS ON TRANSPOSITION OF THE GREAT VESSELS OF THE HEART.

By JOHN COCKLE, M.D., Physician to the Royal Free Hospital.

IN the current volume of the *Medico-Chirurgical Transactions*, a case of transposition of the great vessels of the heart is detailed by me, which was associated with simple patency of the foramen ovale. This case is, moreover, compared with the others on record, three in number.

In these four cases, were it not that some interchange of blood must have taken place through the foramen ovale, two circulating systems, perfectly distinct, would have existed. The right, or aortic system, would have constantly circulated black blood through all the organs connected with it, the muscular tissue of the heart inclusive; and the left or pulmonic system would have as constantly circulated oxygenated blood through the lungs. Indeed, even with a patent foramen ovale, the actual state of the circulation must have been nearly as described, so far as regards the systemic vessels. But, as Meyer* has pointed out, there are mechanical causes for an easy transit of blood from the right to the left auricle. The blood from the left or pulmonic heart, while circulating through the lungs, receiving no substantial additions, would have exhibited a constant tendency to concentration from loss of its watery portion by pulmonary exhalation. The absolute quantity consequently transmitted to the left auricle would have been a constantly decreasing one, and inadequate to the physiological distension of the chamber. On the other hand, the blood of the caval system, constantly receiving substantial addition from its tributaries, would exhibit as constant a tendency to repletion of the right auricle. Hence the necessary result would be, that any surcharge of venous blood would enter the left auricle through the patulous foramen ovale to restore the equilibrium. That this result did follow in the author's case is probable from the increased thickness of the walls of the right auricle.† It would, he imagines, be greatly more difficult to explain the manner in which oxygenated blood could pass from the left into the right auricle.‡ But that such passage was effected, we must admit. Such also seems to have been the opinion of most of the observers of the recorded cases. After carefully considering the whole question, the author is unable to give a satisfactory answer to the following question: How is the absence of cyanosis during the first three months, and its comparatively sudden supervention at the close of that period, to be explained?§

There are no data from which to infer the actual period of closure of the arterial duct.|| Even if there

* Virchow, *Archiv*, B. 12, 4tes-5tes Heft, p. 371.

† Upon this point, Cruveilhier, *Anat. Path.*, t. ii, pp. 477-84, makes the following statement. In hearts presenting no other complication than simple though ample communication between the auricles, the following changes are observed; general enlargement of the right cavities of the heart and dilatation of the pulmonary artery and its branches. The left cavities stand in striking antithesis to those of the right side, being below the average size.

‡ For arguments upon this matter, consult particularly Louis, *Research. Anat. Path.*, p. 337; and Allan Burns, *Observations on Diseases of the Heart*, p. 15.

§ For some interesting examples of malformation shewing the length of time prior to the supervention of cyanosis, see Naumann, *Klinik*, B. 2, s. 321 et seq.; also, Meckel, *Path. Anat.*, B. 1, s. 441; and Louis, *op. cit.*, p. 340.

|| For the most detailed accounts of the period of closure, see Haller, *Element. Physiol.*, t. viii, p. 10; and Billard, *Mal. des Enfants*, pp. 486-94.

were, they could hardly serve to explain the phenomenon in question. The small quantity of blood transmitted through this channel into the aorta during three months would scarcely have tinged the mass of venous blood in the systemic vessels. Its closure, consequently, at this period, could hardly in any way have influenced the production of cyanotic tint.*

In the case recorded by Gamage, the child was born perfectly healthy. No cyanosis supervened for some days; yet the arterial duct seems *never* to have existed. The foramen ovale was largely patent. In these cases, one is almost led to think that perhaps one or more organs, probably with varying activity, have for a time performed some work of compensation—the liver, kidney, skin,† mucous tracts,‡ or thymus gland. In very many cases of cyanosis,§ this latter organ remains unusually large.¶ According to the very careful experiments of Friedleben, related in his work upon the *Physiology of the Thymus Gland*, a diminution of carbonic acid, naturally exhaled, to the extent of 14 per cent., occurred in animals deprived of this organ. Furthermore, in support of this view of the vicarious action of the thymus gland in malformation of the heart, we have the concurrent testimony of Meckel, Sandifort, Duret, Cailliot, and Burns. This hypothesis, perhaps, receives some support from the author's case, in which the organ was very large.

Causes of Transposition of the Great Vessels. There is, as may be well supposed, great uncertainty attending the determination of the proximate cause of transposition of the vessels. The very important results that have followed the study of the changes which the vascular arches undergo, in certain cases of abnormal development of the branches of the main vessels of the chest, have hardly yet extended to the explanation of the phenomenon of transposition of the main vessels themselves. Kürschner,¶ so far as I know, is the chief upholder of the view that faulty metamorphosis of the vascular arches may determine transposition of the great vessels. The researches even of Von Baer, Rathke, and Bischoff, in vascular embryology, have not removed the difficulty. Von Baer** has indicated the manner in which the rotation of the embryo in the yolk to the right determines the transposition of the heart to the right side; but he has not shown how the main trunks *alone* undergo transposition. Perhaps the more commonly received opinion is, that the phenomenon is dependent upon some irregular torsion of the aortic bulb after its division into the systemic and pulmonary trunks. There is one other very interesting question connected with these and other kindred changes, which is, how far they may be influenced by external exciting causes. D'Alton†† has given good reasons for supposing that unnatural compression of the abdomen during pregnancy may be productive of the change. At the same time, he admits the difficulty of the explanation.

Prognosis. Considering the serious nature of transposition of the great vessels of the heart, and occasionally the apparently insufficient nature of the compensation afforded—viz., simple patency of the foramen ovale—it is difficult to conceive how life could be long maintained. Its duration, however, appears to range within comparatively wide limits. While in some cases death has happened almost in a few hours, in others the subject has survived even for years. In the case I have narrated, the child lived two years and eight months. In that recorded by King, two years and nine months were attained. These, with one most remarkable exception, are the longest known instances of the duration of life under such circumstances. This exception is in the case recorded by Nasse.* The subject actually reached the age of nineteen years and some days. Here the foramen ovale was patent, but only to the extent of admitting a crow's quill. The ventricular septum was also defective to the extent of nine lines. From the anatomical results in this remarkable case, it might be inferred that deficiency of the ventricular septum was much more favourable to the prolongation of life than might perhaps appear from an analysis of the cases of transposition extant. But, in some cases with both auricular and ventricular septa defective, life has not been long maintained. In the case observed by Meckel of transposition of the vessels occurring in a lamb, the foramen ovale, ventricular septum, and arterial duct were all open; yet the animal only lived two days.†

Diagnosis. It has been generally considered impossible to arrive at a knowledge of the existence of transposition of the vessels during life, either by the symptoms, or by the usual methods of physical investigation. And, considering the extraordinary rarity of the affection, it is certainly probable that this opinion will long maintain its ground. Still, reflecting carefully on the morbid anatomy of the cases recorded in the third series, there are, unless I greatly mistake, at least the elements existing for a possible diagnosis. Cases of transposition may at once be separated from the more ordinary congenital malformations connected with obstructive change of the orifice of the pulmonary artery. In this common class, the narrowed outlet reveals itself mostly by murmur, and by inference we estimate the coincident or consecutive changes. In transposition of the vessels, abnormal though the circulation be, yet in no sense can it be said to be obstructed. The cyanosis, as before hinted, when existing, can certainly depend upon no pulmonary stasis from impeded egress through the pulmonary artery. The blood freely passes the outlet, and permits the valves to close normally after it. But it is from the manner in which these valves close that some information may possibly be derived. If we glance at the cases of the third series (and at some of the first and second), it will be perceived that, in all the former, the pulmonary artery was absolutely or relatively much enlarged. In D'Alton's case, and in my own, this is obvious. On examining D'Alton's plate, it will be seen that, as in my case, the pulmonary semilunar valves are remarkably large. These valves, then, theoretically, should close with a sound proportionately louder and more marked than those of the aorta. This occurred practically in the case now brought forward. It would, therefore, appear that if, in a case presenting the ordinary symptoms of malformation of the heart—without pulmonary or other disease to complicate it—the heart, though increased in impulse, has its sounds clear and normal, save in regard to an unusually marked second sound at the second and third left costo-sternal cartilages, we may

* We must bear in mind that, no obstruction of the orifices existing, the necessary permanence of this channel was not essential. The cases of the series show that one permanent fatal way suffices. But, even if thought necessary to reserve this point, the explanation of cyanosis is, certainly, not afforded by the more ordinary theory of pulmonary stasis. The theorem of Cruveilhier (*op. cit.*, t. iv, p. 374) would demand modification. The tint must obviously be due to the circulation, through the systemic vessels, of non-oxygenated blood. For the consideration of the question how far the blood, *per se*, can influence cyanotic tint, consult Kreisig (*opus posth.*), *Krank. des Herz. im allgemeinen und auf ihrer erst. Entwicklungsstufe*, pp. 232-3; also, Hamernik, quoted by Henle, *Handbuch der Rational. Pathol.*, B. 2, s.

† Farre, *op. cit.*

‡ Nasse, *Reil's Archiv.*

§ Guirac, *Sur la Cyanose.*

¶ It must be admitted, however, that a case by Nasse, *Leichenöffnungen. Erst. Theil.* p. 167, opposes this view, he expressly states "Von der Thymus was nichts zu finden."

¶ Vide Friedberg, *op. cit.*, p. 96.

** Vide Von Baer, *Erster Theil.*

†† *Op. cit.*, p. 23.

* *Leichenöffnungen, Erster Theil.*

† For much valuable and interesting detail respecting the epochs at which death occurs in cyanosis generally, I must again refer to the elaborate and practical essay of Nasse, in the *Archiv für die Physiologie* of Reil and Autenrieth, Band 10, s. 239 et seq.; also Horner, *Diss. de Cyanosi*, 1832.

be justified in *suspecting* that it is one of transposition of the vessels of the heart.*

Transactions of Branches.

EAST YORK AND NORTH LINCOLN BRANCH.

REMOVAL OF RIGHT SUPERIOR MAXILLARY AND MALAR BONES.

By ROBERT M. CRAVEN, Esq., Hull.

[Read Sept. 23, 1863.]

I PURPOSE to-day to give you an account of a successful case of removal of a large growth, involving the right superior maxillary bone, to effect which it was necessary to remove the whole of the superior maxillary and malar bones.

I have the more satisfaction in doing so, because I have the opportunity of showing you the morbid growth removed, and also the patient, who, I am justified in saying, behaved most heroically under this formidable operation. The interest in a case such as this is, of course, very much increased when one can illustrate a description, and thus give a more practical bearing to the subject. I also had a photograph taken before the operation; and you can, therefore, see him as he was and as he is.

Erichsen, in his work on *Surgery*, states that the operation of excision of the upper jaw together with the malar bone, was first performed by Gensoul in France, and Lizars in this country. To Liston and O'Shaughnessy, we are very much indebted for our knowledge of the diseases and operative procedures necessary for the removal of diseases of the jaws.

I will now proceed to give a brief history of the case, the subject of my remarks.

Thomas Hotham, married, aged 44, agricultural labourer, residing at South Cave, near Hull, was admitted into the Infirmary under my care on June 25th, 1863, with a large tumour of the right cheek.

Projecting from the right cheek was a rounded tumour having the size of an orange. It extended from the external process of the frontal bone and zygoma above to the angle of the mouth below (almost completely closing the right eye), and from the side of the nose to the ramus of the lower jaw. The colour of the integument was natural, except at the upper part below the eye, where it presented a rather livid appearance, and several veins, not of large size. It was very firm to the touch, but elastic, especially at the outer part. Pressure and handling caused little or no pain. The interior of the mouth on the right side, from the alveolar process (which was concealed by the growth or embraced in it) to the inside of the distended cheek, presented a large excavated sore of a greyish sloughy aspect and fœtid odour. This part of the tumour was softer to the touch than that which showed itself externally. It did not encroach on the palate, which was of the natural width. There were no enlarged glands beneath the jaw. The patient seemed a healthy man.

History. The tumour had been growing seventeen weeks. His attention was first attracted to a general swelling of the cheek (at that distance of time) and inside the mouth, resembling the swelling caused by a gumboil. He had no pain in it, but a feeling of numb-

ness. At the end of about five weeks, he showed it to a medical man in his village, who recommended him to use soothing applications, and to have a tooth drawn if the swelling did not subside. The gum was lanced shortly afterwards. Several of the teeth became loose; and as they were much in his way, he pulled them out himself. He had not noticed that the tumour had grown more rapidly of late; and there had been no increase of pain in it. He had always enjoyed good health. There was no history of tumour nor of malignant disease in his family.

The tumour was believed to be of malignant character.

A consultation was held on the case; and all unanimously recommended the operation, which I will now describe, and to which the patient most readily assented; indeed, he seemed to have made up his mind before he came to the hospital to be rid of it if possible.

June 27th. Chloroform was administered, but could not be continued on account of the seat of the disease, except by every now and then discontinuing the operation, which, of course, would have considerably lengthened the proceeding. All were struck with the firmness and brioism of the man, who hardly ever murmured or groaned. The central incisor tooth of the right side was first extracted. An incision was then made in a semicircular line, from the external angular process of the frontal bone into the angle of the mouth. From the upper end of this incision, a cut about an inch in length was carried along the zygoma. Another incision was made from the nasal process of the superior maxillary bone down to the side of the nose round the ala, and through the centre of the upper lip into the mouth. The flap thus formed was carefully dissected upwards, and detached from the tumour in front up to the margin of the orbit. The finger was passed into the orbit to separate the eye, etc., from the floor. The zygoma and external angular process of the frontal bone were then cleared of their soft parts and defined, so as to allow of the correct adaptation of the bone-forceps. The zygoma was first divided by the forceps; and then the external angular process of the frontal bone. The nasal process of the upper maxillary bone was then cleared of all soft parts, defined, and divided by forceps. An incision was now made with a bistoury along the side of the nose, and through the soft parts covering the alveolar process and extended along the soft parts of the palate near to the mesial line. A small saw was used to cut through the alveolar process; and the palate-process of bone was divided with bone-forceps. The whole mass, being now only attached by some soft parts and a portion of the palate bone, was easily removed by a stroke or two of the bistoury and forcibly pulling it down. There was nothing like the hemorrhage one has seen, and would expect, considering the formidable nature of the operation. Two or three ligatures only were required.

The appearance presented after removal, and before the edges of the wound, etc., were brought together, was most ghastly. All bleeding having ceased, and no doubt existing that the whole of the diseased growth had been removed, the cavity left was filled with charpie to give support to the cheek. The flap was then replaced, and carefully brought into neat apposition by means of hare-lip pins and silver wire sutures. A pin was placed in the upper lip, and another at the angle of the mouth. The remaining parts were brought together by suture.

Scarcely any deformity was apparent after the operation; and the man was removed in a comfortable state to his bed. A pad of wet lint was placed over the face. Milk or gruel were ordered as diet.

When seen in the evening, he was very comfortable and tranquil.

June 28th. He passed a very good night; and took milk readily and easily. The wounds looked very well; there was little or no oozing.

* The case recorded, seems also to bear upon the question of murmur as engendered at the foramen ovale. Here, it ever, the condition would probably have existed for the production of such murmur from the apparent necessity of a current through the foramen, guarded, in part, by the remains of the valve. Murmur, however, was at no period detected.

June 29th. He was doing well. Beef-tea was ordered.

June 30th. The dressings were removed from the wound. The incisions had united by the first intention throughout their entire course. There was a little discharge from the right nostril. Simple dressing was applied on lint to the wound. He had a little edema of the lower eyelid.

July 2nd. About half of the charpie was removed by dressing-forceps. The pin was removed from the upper lip.

July 3rd. More of the charpie was removed, and a little fresh inserted.

July 5th. Two or three sutures were removed. There was not much discharge.

July 7th. The wound was all healed, except where the ligatures were hanging out. All the charpie was removed, and, as the cheek kept its form, no fresh was applied. Four ounces of wine daily were ordered.

July 8th. He began to eat a little, very carefully.

July 9th. More of the sutures were removed. The ligatures came away with the dressing. The wound was quite healed by the middle of the month.

August 1st. There was some depression of the cheek. He could not voluntarily close the right eye, apparently from inaction of the orbicularis palpebrarum; but he said it closed during the night. He now took solid food easily; but had some little difficulty in drinking.

August 6th. He was discharged cured.

He has been once or twice at the hospital since he left. There is very little deformity of face. The eye appears more natural; the patient seems quite well.

Examination of Tumour after Removal. It was rounded and lobed, especially that part which occupied the pterygo-maxillary fossa; and was firm on section. The cut surface was smooth, becoming slightly granular after prolonged exposure. The central part had a pinkish or yellowish-white colour. The circumference was more vascular and purplish; in places even of a green colour. There was no appearance of fibrous tissue on the cut surface. To the naked eye, the tumour had the appearance of a malignant growth. Under the microscope, the juice scraped off the cut surface showed no fibrous element; but simply a mass of apparently broken-up cells and granular matter.

In concluding my remarks on this case, I wish to express the obligations I am under for the valuable assistance and advice rendered me by my colleagues during the operation. Without further comment, I will ask you to examine for yourselves, the photograph, the morbid growth, and the subject of the operation himself.

READING BRANCH.

REPORT OF THE READING PATHOLOGICAL SOCIETY.

By H. COLLEY MARCH, M.B.

[Concluded from p. 634.]

SMALL-POX.

THERE was an interesting debate on the subject of small-pox, in consequence of that malady having broken out in the town. Recent writers have looked upon contagion as of two kinds, *common* and *specific*, and consider that they present the following four distinctions.

1. For common communicable inflammation to be communicated, no *predisposition* is requisite, but only sufficient immediate contact; whereas specific inflammation can engraft itself only where certain *textural predispositions* exist.

2. Common communicable inflammation seems to be related to *growth*, or *corpuscular development*; whereas specific inflammation relates to *corpuscular destruction*.

3. The susceptibility to common communicable inflammation seems to reside in the common vitality of

the germs of textural growth; whereas the susceptibility to specific contagion seems contingent on the parenchymatous presence of lifeless, or relatively lifeless, organic compounds.

4. In the products of common communicable inflammation, the predominance of *pus* is a marked, and probably essential fact; whereas the specific contagia seem *not* to produce supuration, except by indirect inessential ways. (*Simon*.)

Now, such inflammations as small-pox and measles are undoubtedly of a specific kind, and as such belong to the second part of the preceding propositions.

Concerning such a specific inflammation as small-pox, it has been noticed: "That in the first evolution of certain textures of the body, there normally arise certain *waste products*, which, it seems, under ordinary circumstances, are difficult of destructive conversion, and therefore tend to an indefinite loitering in the part, or in the system; and these waste products can be stimulated into destructive conversion *only by the contact of similar material already thrown into its specific process of decay*."

Small-pox is a beast of prey, from which Jenner has extracted the claws and the teeth. Before this operation, the horror of its ravages was unutterable. Perhaps its most notable doings were upon the American continent. When Columbus visited its shores the disease was unknown, and consequently whole nations were absolutely unprotected. Hence, when three hundred years ago it was imported into Mexico, the slaughter it caused was terrible; and in the single province of Quito, in twelve months, it destroyed a hundred thousand Indians. Indeed, of some tribes, such as the Mandans and the Assiniboin, it made a clean sweep.

In Europe its effects were equally deadly, though, being spread over a wider interval of time, they were less noticed. It is a curious fact that, in the East, its onslaught had been resisted for ages past by the practice of inoculation. This artifice is known to have been employed by the Chinese as early as the sixth century, and by the Brahmins from the most remote antiquity.

It is a wonderful thing, and very interesting too, when viewed in connection with certain phenomena of vaccination, that when the contagion of small-pox enters the system by its ordinary path—the lungs—it produces such terrible effects, speaking of unprotected persons, as to kill as many as 35 per 100; but when, on the other hand, it is introduced by a puncture in the skin, its effects are usually slight, and it kills as few as 1 in 376.

But though inoculation is a good thing in its way, there are two very great objections to it. 1. It acts fatally on a certain, though a small percentage; and 2. A person inoculated with the disease is just as dangerous to others, exhales a vapour just as contagious, as one who has received the disease naturally; and so would be a constant source of infection to those numerous individuals whose feeble state of health would not permit inoculation to be practised upon them.

Vaccination, on the contrary, when performed with good lymph on a healthy person, is simply harmless to himself, while he diffuses no atmospheric infections to others.

Vaccination, however, had to pass through the usual ordeal. At first, the "bestial humour", as it was called, was set at nought; then Leviticus was quoted against it; and finally, it was asserted that it had been previously discovered in Germany.

It seems certain that vaccinia and variola are practically identical; for a cow has often been inoculated with variolous contagion, and from the pustule produced children have been vaccinated, the result being a true Jennerian vesicle and nothing more, with absolute protection from small-pox. As the system of the cow merely produces some modification in the poison, it is rather to

be expected than otherwise that occasionally it shall happen that in some peculiar human system the vaccine contagion will be *reconverted*, so to speak, into the virulose. This, some observers say, they have seen; and Mr. Ceely states that there is often an eruption which, occurring on or about the acme of the vaccine disease, appears in solitary or grouped papule, which in less than twenty-four hours become vesicular, and run the course of varicella, sometimes causing serious indisposition. Mr. Young has seen similar cases.

It would seem probable that the occurrence of such secondary vaccine eruptions renders the protective influence of vaccination more complete. At all events, it is certain that, when such a state of things is imitated; when, that is to say, a large number of vaccine vesicles is produced, there is afforded greater protection than when a smaller number is effected. And this is the proof. The number of deaths from post-vaccinal small-pox, when the number of cicatrices on the arm of the vaccinated person has been four, is less than 1 per 100; with three cicatrices, 2 per 100; with two, 4 per 100; and with only one cicatrix, the number of deaths has been $7\frac{1}{2}$ per cent.

That the protection that a vaccinated person enjoys should be liable to be lessened in the course and changes of time is not to be wondered at, when it is found that persons may have small-pox itself a second time. Thus, in fifteen years, there were admitted into the Small-pox Hospital forty-seven cases of post-variolous small-pox; and nine of these died.

It has been calculated from copious statistics, that of persons vaccinated in infancy, as many as a *full third* are, when twenty years old, susceptible of re-vaccination. These persons, therefore, though it is not certain that they would all take small-pox, were they exposed to its contagion, yet are undoubtedly endangered. The question, therefore, arises, whether re-vaccination *restores* protection to those who have thus lost it. Unquestionably it does. Before re-vaccination was established in the Prussian army, the yearly average of deaths from post-vaccinal small-pox was 104; while, since its establishment, the annual number for twenty years has been two.

It may be stated, however, as Mr. Marson's very strong opinion, that if vaccination be performed with bad lymph, or otherwise mismanaged, in infancy, it may never afterwards take effect properly; and yet protection from small-pox is not afforded.

Mr. Young has made an observation somewhat similar: that if a primary vaccination have been followed by no visible result, and a re-vaccination be made on the eighth day, this will, if successful, run its course more quickly than usual.

It is an important matter that there is reason to believe that the vaccine contagion loses some of its power and protectiveness by long descent from the cow—by long continued transmission from arm to arm. In Prussia, such continued transmission has prevailed very extensively, and the following seems to be the result. Re-vaccination was introduced into the Prussian army in 1833, and was then successful in 33 cases out of 100. Every year this percentage has steadily increased till, in 1854, 70 successful vaccinations were obtained out of every 100 previously vaccinated. The experiments made amount to above a million in number, and are highly suggestive.

The following observations, relating to the same subject, have been made in this country. The vesicle produced by contagion freshly derived from the cow matures on the eighth day, and desiccates on the seventeenth. This was the case with the vaccinia that Jenner introduced in the year 1797. In 1836, or forty years afterwards, the vesicle produced by the same transmitted lymph, though maturing on the eighth, desiccated on the twelfth day. In this year fresh lymph was pro-

cured; and the vesicle it caused was found to desiccate, as it ought to do, on the seventeenth day. This lymph continued to be propagated till 1844, or for eight years, when the desiccation was found to occur on the thirteenth or fourteenth day. Moreover, it is well known that the febrile symptoms of vaccinia are much more marked when the disease is of recent, than when it is of old descent.

These facts seem to proclaim the desirableness of recurring to the cow for fresh lymph every few years.

One of the most important points of all, however, is whether diseases, especially syphilis and skin-diseases, can be communicated by vaccine lymph. A few striking facts may be mentioned.

Sometimes it happens that a person has been vaccinated too late to prevent an attack of small-pox, and the two diseases come to be present and well marked at the same time. Now, if lymph from the vaccine vesicle be introduced into the arm of a child, what happens? *Simply vaccination; never* the communication of variola.

Again, a person has been purposely inoculated with a mixture of vaccine lymph and the ichor from a chancre; and the result has always been *simply a chancre; never* a vaccine vesicle.

Once more, the same operation has been performed, this time with a mixture of vaccine lymph and gonorrhoeal matter; and the result has been reversed—*always* a true Jennerian vesicle, capable of healthful propagation; and *never* any evil consequences.

In all these cases, however, the person operated upon was previously in perfect health; for the great principle to be observed, and which was first put forth by Dr. Mead, is, that "it is more material into what kind of body the virus be infused, than out of what it be taken;" or, in other and more definite words, let the subject of vaccination be healthy, and let the lymph be taken from a true Jennerian vesicle at the *proper period of its development*, and bad results are impossible, even though the vesicle were developed on the arm of a strumous, eczematous, or syphilitic child. For it is the result of the observation of the greatest authorities, that, if the lymph be bad or contaminated, the vesicle will not be a true one, but, by its departure from its typical character, will at once betray itself.

But the vesicle must not only be *true*, but at its *proper period of development*—about the eighth day, but certainly before the development of the areola; otherwise erythema and erysipelas may be produced.

It is true that, in unhealthy subjects, vaccination will cause mischief; and in *predisposed* subjects, it may excite eczematous or even syphilitic eruptions; and, if blood be drawn with the lymph (if the great Rivalta case can be relied on, and this is not certain), it is quite possible that syphilis may be propagated. But, concerning such things, it has been well observed, that "it is no argument against bread, that alum constipates the bowels; still less is it an argument against quinine, that some drunken shop-boy may give one strychnia instead of it."

With respect to the vaccinal cicatrix: to be good and typical, it must be "radiated, indented, foveated, and averaging five-eighths of an inch in diameter."

Such were the chief points touched on in the interesting debate of the Society.

The outbreak of small-pox in the town seems to have presented no unusual characters. Mr. J. Workman has had a case, in the person of a strong navvie, in which the vesicles, as they formed, became filled with bloody serum; and, as they were pretty thick, he appeared almost black. There was also some bloody discharge from the mouth and bowels. This peculiarity, however, did not seem to affect him, as he passed through the disease very favourably, and rapidly convalesced.

Finally, we may ask whether the hope that Jenner expressed to Parliament, that small-pox will be ultimately

annihilated by vaccination, is likely to be fulfilled. In order to answer this, another question must be asked: How did small-pox originate? Clearly, it must either have been specially created by the Deity, or have arisen spontaneously. The first alternative I absolutely refuse to believe; while, if the second be accepted, it must follow that, *under favourable conditions*, small-pox may at any time arise *de novo*.

A recent writer in one of the medical journals has asserted that, if one accept the spontaneous origin of such a disease as variola, one must, by a parity of reasoning, accept the doctrine of the spontaneous generation of organic life. It is hardly necessary to expose a fallacy that lies so close to the surface. What is called "spontaneous generation" relates to the production of life: the spontaneous origin of disease relates to the processes of decay and of death. It is one thing to say that a being can, by a fortuitous concurrence of atoms, come into existence: it is a widely different thing to say that the living particles of matter of which organic beings are built, and which must die in some way or other, may, by a favourable concurrence of circumstances, die in some strange mode, and under chemical reconversion in some new manner.

Hence it may be believed, that till vaccination be perfectly and universally performed, and till the conditions out of which small-pox may arise be understood and removed, this revolting disease will ever and anon revisit us.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEDICAL MEETINGS.

ABSTRACT OF A PAPER ON PUERPERAL INSANITY.

By S. MONCKTON, M.D., Maidstone.

[Read at Maidstone, October 30th, 1863.]

[DR. MONCKTON, after speaking of the peculiar interest, domestic and professional, that usually surrounds a case of puerperal mania, and of the want of clearness in our knowledge of this sort of disease, and of certainty and success in the treatment of it—a state of things that chiefly arise from the hidden nature of the phenomena presented during life, and the almost entire silence of anatomy after death—proceeded to remark, that undoubtedly puerperal insanity, as commonly so called, was a diverse thing, and presented itself under forms widely differing in their essence one from another. He proposed to contemplate the disease under four heads.]

1. Puerperal phrenitis.
2. Mania occurring to a patient naturally prone to insanity, while that patient is under puerperal conditions.
3. Mania partaking more of the character of delirium, and dependent evidently on brain-function disordered from without.
4. Cases where the patient is possibly not maniacal, and in which the grand change consists in altered cerebration, from what may be termed an intrinsic dislocation of brain-function.

To save time and reduce the amount of description, it may be well to take each definition by itself, to recite a case illustrative of that particular group, to give a few words of comment, and then pass on to the next group.

GROUP I. *Puerperal phrenitis* is a term occasionally met with in systematic writers, and must be held to signify an attack of inflammation befalling the brain-substance or brain-membranes at a time when the patient is more or less affected by childbed conditions. In the sense of a simple inflammation, I never saw a case of this sort, and have failed to find one unmistakably recorded. Such examples must be amazingly rare, and can only be dealt with on general principles, as we would deal with a pleurisy or pericarditis occurring to a woman in childbed, but having no con-

nexion with the puerperium beyond what is derived from contemporaneous existence. Should such a case arise, it would almost infallibly be of a low congestive type, and not improbably the result of some animal poison in the blood. We come next to

GROUP II. *Mania attacking, under puerperal conditions, a patient prone to insanity.* Of this the following offers an example. Mrs. S., aged 37, mother of three children, was confined, after a severe labour, of the fourth. There was distinct history of insanity on the side of both parents. During the first twelve months of her married life she had evinced very grave eccentricities; and it had become necessary for her husband, a dissenting minister, to change his sphere of duty for the purpose of securing variety of scene and circumstance for his wife. The first three labours were not followed by any unusual mental disturbance; but, about the fifth month of the fourth pregnancy, she experienced a fortnight's attack of what may be called morose mania, unaccompanied by any uterine or physical disorder, beyond depraved appetite and constipation. She threatened the domestic, refused to move out of one room, or to touch food while being looked at. This passed away, and she completed the term of utero-gestation without mishap, suffered a rather protracted and trying labour, and did perfectly well for one week. On the eighth day, an alteration in manner was observed; she disliked her husband; refused to speak for hours, and at last answered, muttered, or shouted incoherently; strong religious delusions, sometimes cheerful, sometimes despairing, took possession of her; and by the end of the third week she was absolutely mad. During this time there had been little bodily disturbance; the pulse was generally quiet; the lochia were diminished, but not suppressed with any abruptness; and the milk continued to a fair amount, so that she could suckle the infant that we dared not leave with her in bed. There was no rigor, no abdominal pain nor headache; and fever of all sort was practically absent. The treatment adopted was simple enough, consisting of purgative and sedative remedies, absolute seclusion, and moderate restraint. In a mental point of view, she became worse every week, and was soon placed, for security and better management, in a large public asylum. Here she remained nearly seven months; and was then, after the manner of such institutions, discharged cured. In ten days more, she poisoned herself with sulphuric acid.

A second case, that may be used to illustrate this particular group, occurred in the person of a middle-aged woman, most respectable, and of exemplary character, though in humble life. She became the mother of three healthy children without the development of any untoward mental manifestations; although, in one branch of the family, lunacy could be traced. Three months after the birth of the fourth child, she shewed evident signs of cerebral disorder, partly as headache and conscious confusion, partly in altered habits and feelings. She took to her bed; lay for hours with closed eyes, though awake all the time; and went occasionally into fits of excitement, either in the shape of unmeaning despair about herself, or of demonstrative affection for her husband. In this instance, again, the bodily health was little deranged; pulse calm; milk undiminished; flesh, strength, and every function, up to an average point. I saw her but once, in consultation, at this stage; suggested a continuance of the rational remedies that had been made use of, and pointed out the probability of her becoming worse and worse for a time in regard of mental soundness. Three months afterwards, she came before me again, raving mad, and was consigned to a lunatic asylum.

Here, then, we have two examples of what can only be regarded as insanity, that might have occurred at any time, taking occasion by the puerperal condition, and occurring then; in one instance during gestation,

and just after delivery; in the other at a later period, when lactation had been going on for three months. The features common to each were the existence of a lunacy taint in the family, the commencement of the symptoms without recognisable or adequate cause, the prominence of the mental disorder, and the absence of mischief to the bodily health. In all the groups before us we shall find, of necessity, disordered cerebration; but the main point of this paper is to invite attention to the fact that this disorder may affect the cerebrum and the patient in very different ways, producing diseases as separate from one another in their nature and effects as delirium tremens, mania, and tetanus; to point out that, though in all cases grouped together in ordinary practice as "puerperal mania" (a term that, according to my views, would require very considerable modification), the encephalic centres will be found to suffer, they sometimes do so as intellectual centres; sometimes as partakers of a general disturbance, as in delirium, toxæmia, and impressions from without; and sometimes, most fatally of all, do they suffer in that relationship to the functions of organic life which undergoes important change as a necessary consequence of the pregnant and parturient conditions.

GROUP III will comprise those cases wherein the mental perturbation is rather of the nature of delirium than of true insanity at all, and wherein this delirium is traceable, more or less clearly, to some blood-grief or bodily lesion capable of producing it; in which, therefore, as we have already expressed it, the brain has become disordered from without. Here is an example.

Mrs. B., aged 28, was confined in March 1861 of her fourth child. She did well for more than a fortnight; then suffered from sore nipples, obstructed milk-ducts, and final abscess in the left breast. Before confinement, she had been subjected to a series of mental shocks. She had nursed her mother laboriously for some weeks, and then seen her expire, while she herself was completing the sixth month of pregnancy. Her own child had died in convulsions a month later. Then came the labour; then the painful maturation of a mammary abscess. While the matter was forming—i. e., about three months after confinement—she first showed an unwonted timidity, obstinate wakefulness, and foreboding of evil. She sweated intensely; lost much flesh and strength; but the milk in one breast, urine, and lochia, continued to flow. After the abscess broke, she improved in health and spirits for a day or two; then became again excited and aberrant, then delirious and raving. She saw people in her room; declared that absent and dead friends were round about her; that she was still undelivered and flooding. She rattled on very rapidly, and wore a frequent expression of terror and tremulous haste, sometimes eating, sometimes refusing food. Pulse quick; skin often bathed in perspiration; occasionally sleeping, but not often, unless under the influence of powerful narcotics. This went on without a distinct lucid interval for about twelve days; then she became sleepy, slept almost constantly for several days, awoke coherent but exhausted, and then rapidly recovered.

Here we find almost a typical case of traumatic delirium tremens; the breast-abscess consummating the overthrow of brain-equilibrium, for which previous and successive exhausting causes had prepared the way. Doubtless, some of those who hear me have seen cases where temporary mania of the delirious type has been set up after delivery by the onset of scarlet fever or other illness; and I remember one case wherein delirium persisted for four or five days with febrile excitement and vomiting, manifestly as the result of low enteric fever caused by a vast accumulation of scybala and worms, only known to exist a fortnight after delivery. Time will not permit me to discuss the connexion (important as the question is) between this dis-

ease and albuminuria and convulsions; still it would be wrong to leave the consideration of the group now before us without observing that in it would fall, according to my views, all such cases of puerperal mania as did co-exist with albuminous urine; for, under such a combination, it would be impossible to doubt that the mania was the result of a foreign, most likely a toxæmic, irritation.

GROUP IV is one in which it is possible enough that the patient may not be maniacal at all, and in which the grand change appears to consist in altered cerebration from what may be termed an intrinsic perversion of that department of the brain-function that regulates the operations of organic life. That material changes do occur in the function of innervation, with reference to the commencing and ceasing requirements of child-bearing, is certain enough. After conception, we often see the sour woman become serene, and the serene sour; the fat woman thin, and the thin one fat. The delicate and sensitive will grow almost stolid and robust; while, on the other hand, the hardy frame may be handed over to the miseries of vomiting, palpitations, and syncope. All these and such-like phenomena indicate the occurrence of a certain shunting of the nervous influences which preside over nutrition and growth; for it is certain that, however unobtrusively, in some cases, gestation may proceed, it is never limited to a mere extension in one line of the ordinary nutritional processes; a fœtus is never grown in the same way as an equal number of pounds of fatty tumour. When we contemplate not only the existence of these phenomena, but their striking coincidences and metastases (as when milk suddenly dries up on the occurrence of a new conception, or still more miraculously bursts forth a few hours after delivery), it is palpable enough that not only increased effort, but special machinery, has been called into play. As a matter of necessity, there comes a time when a return to the *status quo* has to be accomplished. May it not well be that such return, if faulty—such involution of brain-force, if misdirected—may bring about a catastrophe as fatal and more abrupt than that which befalls the infant if the evolution of the fœtus into the complete heart fail to be accomplished? It is quite possible to find something of this sort hinted at in different works as vaguely operating in some way as a general cause of puerperal mania. I am asking your opinion as to how far we may exonerate it from all blame in the causation of the preceding groups, and charge it absolutely with producing the distinct attacks comprehended in this Group IV. The two following cases will serve as illustrations. It will be seen that, in each instance, the patient was whizzed out of existence solely, as it appeared, by a runaway pulse, impelled by some perverted condition of the encephalic centres; just as other patients are hurried off by a similar nervous storm affecting the motor apparatus instead of the nutritional, and called tetanus.

Mrs. J., the wife of an excise-officer in the country, aged 44, the mother of nine children, and in good health, was confined of her tenth after a natural and most satisfactory labour. She did well, in the ordinary sense of the phrase, for a fortnight; that is, she had no rigors, no fever, no pain; there was some milk (not much), perfect collectedness of manner, but a very rapid pulse; so that she presented, for more than a week, the daily puzzle of everything seemingly right, with a certainty that there must be somewhere a serious hidden wrong. So isolated was the pulse-symptom, that I strove to learn whether it was always so with her—whether her pulse was constitutionally one of great rapidity. About the seventeenth day, her milk disappeared, and lochia ceased; she became more sleepless, then excited and incoherent; pulse steadily 160; and she was found to have lost much flesh. On the twenty-first day, she was fairly mad; on the twenty-second,

semi-comatose; and on the morning of the twenty-third day she died.

Mrs. M., aged 28, a carpenter's wife, confined with her first child, at full time, three months after marriage. Labour natural; progressed favourably for a week in most respects, though there was, the medical attendant perceived, a something wrong throughout; still no physical error could be found beyond a rapid pulse. I saw her with him on the seventh day. She was lying on her back, looking calm, but depressed. She had no pains, some confusion about the head, but no delirium. She answered rationally, and took food sufficiently well. No sign of abdominal tenderness, of rigors, fetid discharge, sweats, or blood-poisoning, could be found; still her pulse ran on at over 160. On going down stairs, I expressed to the medical attendant my conviction that it was a case for which no other name had been provided than puerperal mania, ill-fitting as that term might seem to be; that most certainly there was brain-grief of one of the sorts most commonly included under this name; and that I greatly feared she would die. The next day found her incoherent and rambling, and the day after that she died.

We will not enter, even for a minute, on the question of treatment. Wordy and difficult as the consideration of this subject almost inevitably becomes, no mean practical result will have been attained if your experience, past and future, should bear me out in believing that, when called upon to treat any one of the sad forms of disease that are contemplated above, we may reasonably expect to be able to rank it (setting aside phrenitis) under one of three heads—1. Mania for which we may predict the madhouse; 2. Sympathetic delirium, wherein we may expect recovery; or 3. Perverted cerebral involution, that leads too surely to the grave.

Progress of Medical Science.

FATAL CASE OF TRICHINOUS DISEASE. Dr. Tüngel of Hamburg had under his care a sailor aged 16, who had, a short time previously, come from Valparaiso. The patient suffered from diarrhoea, with pain in the abdomen. To these symptoms were subsequently added loss of appetite, headache, and violent pains in the limbs, especially in the legs. The skin was hot and perspiring; the face red; the pulse very frequent; the legs, especially the calves, seemed rather tense; the skin generally was very tender on pressure. At a later date, disturbance of consciousness set in; the features became collapsed; there were frequent involuntary alvine evacuations; the breathing became laborious; the cutaneous tenderness continued. As the loss of consciousness and the collapse increased, the temperature and the frequency of the pulse fell; the voice became weak and somewhat hoarse. The patient died in a state of unconsciousness.

On microscopic examination, the muscular tissue was found to contain a number of living trichinæ, not encapsuled; they were most abundant in the thoracic and abdominal muscles, in the diaphragm, and in the muscles of the calves; the heart and the intestines contained none. There were some adult trichinæ, but not many, in the intestinal mucus. Very many of the muscular fibres had a granular appearance, and presented no transverse striæ; in a few spots the trichinæ were rolled in a spiral form and enclosed, but generally they were free—some being small and extended, others bent in different ways, many rolled up. All were alive, and remained so several days, even when decomposition of the muscles had commenced.

On inquiry it was learned, that the crew of the ship had killed a pig which they had brought from Valparaiso, and had eaten thirty pounds of the fresh meat.

When the ship arrived at Hamburg, many of the crew had colds and coughs; none complained of muscular pains; the patient and another man had diarrhoea, but the latter recovered in a few days. In the salted meat of the pig, there were found many trichinæ enclosed in transparent capsules. In the case described above, death took place on the twenty-fourth day after infection. (*Virchow's Archiv*, and *Wiener Medizin. Wochenschr.*, 19 September, 1863.)

INFANTILE SYPHILIS: SIMULTANEOUS MANIFESTATION OF PRIMARY, SECONDARY, AND TERTIARY SYMPTOMS. In a child aged 2 years, admitted under the care of M. Roger into the Children's Hospital in Paris, there were observed the following lesions. 1. Near the frænum of the upper lip there was a kind of fissure with slightly indurated edges. M. Ricord, who saw the case, pronounced this to be a manifest chancre. The gums were also rather spongy, and there was inflammation of the submaxillary glands. 2. Copper-coloured spots of syphilitic roseola were present on the thighs, forehead, nose, and cheeks; there were also distinct traces of secondary syphilis in the vulva and anus, with redness of the parts and leucorrhœal discharge. 3. Numerous exostoses existed. There were two projections resembling horns on the frontal eminences; each was of the size of a hazel-nut, and was rather soft in consistence (*demi-molle*); the skin over them was not hot, nor changed in colour, and was but slightly painful on pressure. The projection on the right was reddish at the apex, and gave a tolerably distinct sensation of fluctuation (it subsequently suppurated). There was also an enlargement at the lower and inner part of each humerus, that of the left being least marked; both were painful on pressure, but unattended with heat or change of colour in the skin. The patients still improved rapidly under the administration of calomel and iodide of potassium.

M. Roger found that the mother had an imperfectly cicatrised chancre of the lip, and some probably secondary manifestations. He believes that she infected the child, in whom the series of symptoms succeeded so rapidly as to appear simultaneously, instead of at intervals, as is generally the case.

Another instance of this concurrence of the various stages of syphilis occurred in the practice of Dr. Sicard of Nice. He was called in August to see an infant seven months old, of lymphatic temperament, but well formed, which had, on the upper parts of the thighs, on the genital organs, and on the buttocks, an eruption of thin yellow scabs on a reddish base. Where the disease was most recent, there were, in the centre of large red spots, bullæ containing an opaline serosity; and, according to the nurse, the scabs were the remains of similar bullæ which had burst and become dried. There were some rather extensive patches of roseola on the neck. The child's general health was good; it had no fever, took the breast well, and did not seem to suffer. The disease had been noticed for nine days only. M. Sicard was inclined to believe it to be of syphilitic nature; but no trace of syphilis could be discovered either in the parents or in the nurse; and the infant had, up to a recent period, been in good health. It appeared to recover under simple treatment; but, on September 10th, a new series of symptoms appeared. The skin, which was slightly copper-coloured at the points attacked, presented erosions and ulcerations; the pituitary membrane was ulcerated, and yielded a scanty sanious discharge; the cervical glands were engorged; there were signs of onychia on several fingers; and there was an exostosis on the crural bone, of the size of a walnut, rather soft, painless, and unattended by increased heat or by redness. The child had slight fever, and was thin and restless. Recovery soon took place under the use of baths of bichloride of mercury, and of

iodide of potassium. There was the cicatrix of an ulcer on the lower lip; and Dr. Sicard suggests that the disease was acquired, not hereditary, and that it was communicated to the child by some person other than the parents or nurse. (*Gazette des Hôpitaux*, 17 et 31 Octobre 1863.)

SUBCUTANEOUS INJECTIONS IN OPHTHALMIC SURGERY. Professor von Gräfe has published an article on the employment of subcutaneous injections in ophthalmic surgery. His experiments have been confined to acetate of morphia and sulphate of atropia. The best point for performing the operation is the middle of the temple. He has repeated the procedure at intervals of one or two days, in this region, in several hundred cases; and uses the temple as the place for injection in all cases in which there are not some special indications, such as neuralgia or spasm, denoting that another locality would be preferable. The skin should be well raised from the subcutaneous layer, the cannula well pushed into the cellular tissue, and the skin should be allowed to close round the cannula, so as to prevent return of the fluid. The quantity of acetate of morphia used in Von Gräfe's experiments varied from one-tenth to one-half of a grain, the average being one-fifth or one-sixth. The solution used consisted of four grains of acetate of morphia in a drachm of distilled water; it should be neutral, or only very feebly acid.

The physiological action is the same as when the morphia is taken by the stomach; but it is generally more powerful, and therefore the quantity injected should be less by about one-third than that which would be given internally. The action on the iris is interesting. Frequently, at the end of a minute, sometimes in a quarter of an hour, "opium-myosis" sets in; this is best observed where the sizes of the pupils are compared by a moderate light. The degree and duration of the myosis vary in an extraordinary manner; in many cases it continues well marked for several hours, and goes off slowly. Sometimes, in very irritable persons, and when the quantity of morphia has been relatively large, there is spasm of the accommodation-muscle of the iris; when this occurs, it is at a late period—at the end of the stage of irritation.

The most important therapeutic indications for the subcutaneous injection of morphia, according to Von Gräfe, are the following. 1. Shortly after the infliction of wounds on the eyes, when there is very severe pain; as after the entrance of foreign bodies, superficial burns, or wounds with the finger-nail. The pain is subdued more rapidly by the subcutaneous injection of morphia, than by dropping atropine into the eye and applying pressure. Von Gräfe is opposed to the application of leeches after the removal of foreign bodies, in contusions, and after perforating wounds, as they are more liable to produce than to prevent inflammation and suppuration. 2. After operations on the eye, followed soon by severe pain. 3. In the neuroses of the ciliary nerves which accompany iritis, glaucomatous choroiditis, and many forms of inflammation of the cornea. 4. As an antidote to poisoning by atropine; this action of morphia was first pointed out by B. Bell in 1857. 5. In neuralgic affections of the terminal distribution of the trigeminus in the forehead, independent of disease of the eye. 6. In various forms of reflex spasms; as spasm of the eyelids in keratitis after wounds, and in the spasmodic contraction extending over the course of the facial nerve.

In injection of atropine, the greatest caution is required. In some individuals, one-sixtieth of a grain produces general symptoms. In general, the first dose injected should not exceed this quantity; and it may be gradually increased, perhaps to one-twelfth of a grain. According to Von Gräfe, the use of atropine in injection is very limited; and, to produce its mydriatic effects, it

is preferable to drop it on the conjunctiva. Even when a large amount is injected, the dilatation of the pupil is but moderate, and the accommodation power of the iris is not suspended; while the desired effect is produced by a much smaller quantity dropped into the eye. In neuralgia atropine injection produced no result, and in spasmodic affections a very doubtful one; so that its employment seems confined to cases where the conjunctiva will not tolerate the presence of the atropine. (*Archiv für Ophthalm.*; and *Wiener Medizin. Wochenschr.*, 31 Oct., 1863.)

LOCAL TREATMENT OF OZÆNA. M. Trousseau, in cases of idiopathic ozæna depending on a local organic lesion, prescribes various absorbents and disinfectants, which do not, however, prevent the cauterisation of ulcers when present. He uses a mixture of equal parts of subnitrate of bismuth and Venice talc in powder, to be taken like snuff. As a disinfectant, he employs a mixture of two parts of chlorate of potash with fifteen of powdered sugar. White or red precipitates, in the proportion of one part to sixty of finely powdered sugar, is also used, especially if the disease be syphilitic. The first two of these remedies may be used without restriction; the last requires care in its administration. The mercurial powders should be used at an early stage for several days; they should be inhaled into the nose twice or thrice daily, according to the amount of irritation which they produce; a pinch being taken into each nostril, so that the powder may reach all the anfractuosités of the nose. The fetidity often disappears a few hours after the first inhalations; but the effect is only temporary, and the treatment must be persevered in, regard being paid to the irritation of the mucous membrane which may be produced.

For children, M. Trousseau uses injections of nitrate of silver, sulphate of copper, sulphate of zinc, chlorate of potash, or corrosive sublimate. (*Bulletin de Thér.*, and *Gaz. Méd. de Paris*, 31 Octobre, 1863.)

FRACTURE OF THE LOWER END OF THE RADIUS; MODE OF REDUCTION; TIME REQUIRED FOR CONSOLIDATION. M. Jarjavay thus describes the method which seems to him best fitted for reduction of fracture of the lower end of the radius. The forearm is placed in a state of pronation, the hand hanging down, while an assistant fixes the elbow. The four fingers of the two hands being crossed together, the edge of the hand next the index finger is placed below the upper fragment, and the two thumbs are crossed over the dorsal aspect of the carpal fragment. The lower end of the forearm is thus embraced in a circle of which the posterior and inferior part rests on the upper fragment, and the anterior and superior part on the lower one. Then, by a simultaneous movement of pronation in both hands, the first of these fragments is pressed towards the dorsal aspect of the forearm, and the last towards its anterior surface. M. Jarjavay says he never hesitates to use any amount of force required, and has not observed any bad results.

As to the time required for consolidation, M. Jarjavay says that in the fourth or fifth days, and *a fortiori* on the seventh, eighth, or ninth, after a fracture of the lower end of the radius, the surgeon may remove the splints, and leave the arm in a sling, allowing the patient to use his hand carefully. If, on the same or the next day, it be ascertained that there is too much mobility or a fresh displacement, the apparatus can be readily re-applied; but if no indication for this appear, the patient will have the advantage of recovering the use of his hand more rapidly than if the splints, etc., had been retained. Of eight patients, the fracture was consolidated in four on the sixteenth day; in one on the fifteenth; in two on the fourteenth day; and in one on the twelfth day. Hence M. Jarjavay concludes that fracture of the lower end of the radius is consolidated

more rapidly than is generally supposed, and that there is at least no danger in removing all apparatus on the sixteenth day, even if the surgeon fear to remove it before this time. (*Bull. Génér. de Thér.*, and *Gaz. Méd. de Paris*, 31 Oct. 1863.)

Reviews and Notices.

GUY'S HOSPITAL REPORTS. Edited by SAMUEL WILKS, M.D., and ALFRED POLAND. Third Series. Volume IX. Pp. 339. London: 1863.

This volume of *Guy's Hospital Reports* contains ten papers.

Dr. WILKS contributes the first paper, which is one on Syphilitic Affections of Internal Organs. The author's object is to bring proof, from the resources of Guy's Hospital, in support of the doctrine recognised in modern times—that the internal organs may be affected with syphilitic disease equally with the external. He attributes the non-recognition of this fact until lately, to the circumstance that syphilis has been regarded as a *surgical* disease, and that its manifestations have been looked for only in those parts of the body which are within the reach of sight or touch.

The effects of syphilis on the system are, Dr. Wilks observes, characterised by effusion of lymph; giving rise, for instance, to nodes, condylomata, tubercular eruptions, etc. This effusion takes place not only in external but in internal organs; and Dr. Wilks brings forward from the museum of Guy's Hospital instances which he believes to prove its occurrence in the liver, spleen, lymphatic glands, lungs, larynx, trachea, and bronchi, stomach and intestines, pharynx and œsophagus, muscles and heart, blood-vessels, brain and nerves, eye, teeth, ear, skin, testes, and bone.

The peculiar characters of the syphilitic deposit are thus described by Dr. Wilks. He takes the deposit in muscle as an example. The tumour which may be felt through the integuments,

"Differs from the ordinary class of tumours known as new growths; since the latter proceed from a small point or centre and continually grow on the surface, whereby they become circumscribed, and are constituted wholly of the new material that has been thrown out. This is the case in cancer or tubercle. In the syphilitic tumour, however, the exudation appears to have been in the first place of a soft and albuminous character, and, being poured out in large quantity, has infiltrated the tissue; consequently, when examined, the lymph and the original structure of the part are found incorporated. At a subsequent period, when the tumour has become hard, if a portion be examined by the microscope, the muscular structure will still be found present in the apparently simple, hard, fibrous mass; and thus it is that, if appropriate remedies be given at an early period, the tissue will be left in its integrity after the adventitious material has been absorbed. . . . The diseased mass is not so circumscribed as a new growth, and the lymph or fibre will be found radiating into the muscular tissue beyond. . . . If not absorbed by remedies, these tumours become very hard, and then more circumscribed, and remain inert for many years." (P. 17.)

Mutatis mutandis, the same process occurs in the liver, etc.; and, when the fibroid nodules are not seen until they have existed several years, they are characterised by a remarkable cicatricial appearance

of the neighbouring parts, the result of contraction of the deposit. It is this interstitial deposit of lymph, and subsequent contraction, which, Dr. Wilks observes, constitutes the disease.

The second paper is one by Dr. HABERSHON, on Pulsating and Aneurismal Tumours of the Abdomen. He gives a very complete account of the symptoms, terminations, diagnosis, causes, duration, and treatment, of abdominal aneurism, carefully noticing those conditions in which pulsation may be produced though an aneurism be not present. The causes of abnormal pulsation in the abdominal region, independently of aneurism, are enumerated as being, hysteria, dyspepsia, functional disease of the ovaries, and pregnancy, local disease in the parietes leading to suppuration, anæmia, dilatation of the heart, aortic regurgitant disease, displacement downwards of the heart by thoracic effusions, and pressure of tumours or enlarged glands on the aorta. Dr. Habershon gives, in conclusion, the histories of sixteen cases—thirteen of abdominal aneurism, and three of non-aneurismal but pulsating tumours.

The third and fourth papers are by Mr. TOWNE, and are in continuation of a series of articles which he is contributing to the *Guy's Hospital Reports*. The first is on the Stereoscope and Stereoscopic Results; and the other on the Stereoscopic Test for the Retinæ. Both these papers must be read in the original to be fully comprehended; they show that the subject of stereoscopic vision has been most carefully investigated by Mr. Towne. The second paper is that which possesses most practical interest, as in it the author proposes the stereoscope as a means of testing the *functional* condition of parts of the eye, just as *structural* conditions are tested by the ophthalmoscope. For making the examinations, he uses slides on which are drawn semicircles to be seen by the nasal and by the temporal halves of the retinæ, and also others on which is drawn the entire field for both eyes. In various defective states of vision, it is found that—as is shewn by the records of a dozen cases—the ordinary stereoscopic results are interfered with, and instead of the two halves of the circle coming well together, one may be higher or lower than the other, or placed obliquely; or there may be a difference in the perception of colour and brightness on the two sides of the field. As far as we can judge, Mr. Towne's suggestion to thus apply the stereoscope to practical purposes merits the attention of ophthalmic surgeons.

The subject of the fifth essay, by Dr. WILKS and Dr. A. S. TAYLOR, is a Case in which a Large Quantity of Nitrate of Potash was taken Medicinally. The patient was a man aged 34, admitted under the care of Dr. Rees, for renal dropsy, and subsequently transferred to Dr. Wilks. In the course of the treatment, nitrate of potash was given, first in half-drachm doses, and subsequently in doses of a drachm and a half, three times a day. The secretion of urine was increased; and, at a period when the man was passing sixty-four ounces daily, the examination of a portion of it indicated that, while he was taking 270 grains of nitrate of potash daily, 158.7 grains of this salt were eliminated in the urine. As to the remainder, the authors do not decide whether it passed away in the form of sulphate or chloride, or by the intestines. The authors comment on the toxicological bearings of the case; and regard it as shewing that, notwithstanding that nitrate of potash

in large quantities is an irritant poison, doses of considerable size may, as in the present instance, be given at intervals, not only with impunity, but with positive benefit; the rapid elimination of the salt from the body preventing any poisonous effects. These remarks they intend to be applicable to other substances also, of a poisonous nature; such as arsenic.

Drs. TAYLOR and WILKS also contribute the sixth article, On the Cooling of the Human Body after Death. They give a table of 100 cases in which the temperature of the body after death has been noted at intervals. The paper is an interesting one; but its perusal only shews that we have yet much to learn with regard to the subject treated on by the authors.

The seventh paper belongs to the series of contributions to clinical surgery which Mr. BRYANT has been placing before the profession. The subject of the present essay is Tumours; and the author discusses the subject in chapters; viz., 1. Some Points in the Pathology of Tumours tending to illustrate the Subject of their Diagnosis; 2. The Sebaceous or Steatomatous and Epidermal Tumours; 3. Certain Forms of Cystic Tumours; 4. Hydatid Tumours; 5. Fibro-cellular, Fibro-plastic, and Fibrous Tumours; 6. Recurring Fibroid Tumours; 7. Cancerous Tumours.

In the eighth paper, Mr. JAMES HINTON describes a Case of Sebaceous Tumour within the Tympanum. The tumour originated in the external surface of the membrana tympani; and the cavity was occupied by bands of membrane.

Mr. POLAND next gives a Collection of Cases of Foreign Bodies found in the Stomach and Intestines. He has collected from various sources, and evidently with much labour, the notes of fifty-nine cases in which foreign bodies of various kinds have been introduced into the stomach, small intestines, vermiform appendix, and large intestines.

The recorded cases of foreign bodies in the stomach—thirty-eight in number—denote that the following results may take place:

"1. The foreign bodies may be vomited up. 2. They may escape into the intestines and pass off with the fæces. 3. They may, as in the case of pin-swallowing, traverse the organ and appear at different parts of the body. 4. They may remain quiescent in the stomach for a long period, and the patient die of other causes. 5. They may cause gastritis, indigestion, impaired health, and slow emaciation, with exhaustion, terminating in death. 6. They may cause inflammation and adhesion of the stomach to the abdominal parietes, then produce ulceration and abscess of the parietes, which, when opened naturally or artificially, allows the foreign body to be extracted, and fistula almost necessarily results. 7. They may cause inflammation and ulceration of the stomach, and become engaged in partly traversing the parietes, and then, from want of effort in repair, and from some sudden separation of the adhesions, may perforate the peritoneal cavity, inducing violent peritonitis and death. 8. They may at once, from their sharpness, perforate the stomach immediately, inducing collapse and rapid peritonitis, such as is observed in ruptured viscera." (Pp. 305-6.)

When foreign bodies become lodged in the large and small intestines, the results, as far as can be gathered from the comparatively small number of cases recorded, are the following:

"The symptoms induced are very vague and uncertain, and give no evidence of either the presence or situ-

ation of the foreign body: they may consist of acute and chronic enteritis, cæcitis, and colitis, and even peritonitis. The foreign body may cause ulceration of the gut, and induce its symptoms; but it more often would penetrate through, causing the symptoms of perforation, collapse, and fatal peritonitis. It may, again, make its way to the surface of the body by progressive inflammation, adhesion, ulceration, and suppuration, ending in an external abscess, which, when opened, gives exit to the foreign substance. By far the most fatal and complicated condition is the impaction of the foreign body in some part of the gut, such as the lower part of the ileum, the cæcum, etc., causing at first partial, then total, obstruction of the gut, forming what is termed an internal strangulation or hernia." (P. 321.)

In the preceding remarks, Mr. Poland excludes altogether concretions acting as foreign bodies. He briefly alludes to the operations of gastrotomy and enterotomy for the purpose of removing the foreign bodies, and at present is not favourably disposed towards gastrotomy. He promises, however, to return to the subject on a future occasion, in introducing some remarks on penetrating wounds of the abdomen. In this way, he expects that we may "learn from nature her successful modes of performing the repair of accidental gastrotomy and enterotomy."

The last paper in the volume is a chemical one, by Dr. A. DUPRÉ, entitled Some Observations on the Iodic Acid Test for Morphia.

"Having frequently observed," he says, "that students failed to obtain the blue iodide of starch by the action of iodic acid on morphia, even when using quantities of the alkaloid much more considerable than are generally alleged to yield the result, I have been induced to examine into the circumstances most favourable for the successful application of the test." (P. 323.)

Such is an outline of the contents of the last volume of *Guy's Hospital Reports*. The papers shew much work on the part of their authors, and, if not all considered of direct practical bearing, must still be regarded as presenting many points of scientific interest.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF LONDON. Volume Fourteenth. Comprising the Report of the Proceedings of the Session 1862-63. Pp. 301. London: 1863.

THIS volume contains, as is the custom in the volumes of the Pathological Society's *Transactions*, accounts of various specimens exhibited at the meetings of the Society.

Among the cases of Disease of the Nervous System are some instances of plugging of the cerebral vessels by emboli, and of intracranial suppuration.

In the section allotted to Diseases of the Respiratory Organs, the principal contributor is Dr. Gibb, who exhibited numerous instances of various forms of laryngeal disease. Mr. Teevan gives two cases of very rare occurrence—a deposit of fat on the pulmonary pleura. In both cases, pleural adhesions existed.

In the section on Diseases of the Vascular System is a very able report on cases of Dissecting Aneurism, by Dr. Peacock. The term "dissecting aneurism" appears to have been first used by Maunoir, who described the lesion in 1802. Since that time—and especially since 1849—a large number of cases have been recorded; so that Dr. Peacock has been able to

obtain the histories of eighty cases where the disease existed in a well-marked form.

He describes this form of aneurism as presenting three stages. In the *incipient stage*, "there is a rupture or destruction of a part or the whole of the internal coats of the vessel, and an extravasation of blood to a limited extent between the external and middle coats, or, more probably, in the laminæ of the latter." In the second or early stage of the fully formed aneurism, the blood is extensively effused between the middle and external coats, or between the laminæ of the middle coat. Most of the recorded cases have been in this stage. In the *advanced stage*, there is "an opening through the internal coats of the vessel, leading into a sac situated within the arterial tunic, and extending to a greater or less distance along the course of the vessel. The sac is lined by a distinct membrane very similar to the natural lining membrane of the arteries;" and not unfrequently it reopens into the vessel or into some of its primary branches.

With regard to the relative frequency of dissecting aneurism in the two sexes, Dr. Peacock finds that, of 72 cases, 39 occurred in males and 33 in females. As to age, the records of 68 cases shew that in 11 instances the patients were between 40 and 50; in 18, between 50 and 60; in 10, between 60 and 70; in 10, between 70 and 80; while in 12 the ages varied from 17 to 40, and in 3 the patients were respectively 84, 88, and 95 years of age.

As to the situation of the perforation and extent of separation of the arterial coats, Dr. Peacock has given a very careful analysis of 73 cases. We cannot follow him through all his details, but will note a few of the principal points.

"Of 73 out of the 80 cases collected, including those only in which the disease was fully formed or of the second and third stages, the internal rupture was situated near the origin of the aorta, or in the ascending portion of that vessel, in 55 cases . . . near the origin of the *arteria innominata*, in 7 cases . . . at the commencement of the descending thoracic aorta and beyond the origin of the left subclavian artery, in 8 cases . . . in the abdominal aorta, in three cases."

The lesion in all cases appears to arise primarily in the aorta; but it may extend to other vessels, especially—as would be expected—those arising from the lower part of the vessel. Thus, while it does not seem that the separation of the coats ever affects the carotid or subclavian arteries, instances have been observed in which it has reached the renal arteries, the iliacs, and even the popliteals.

After some statistical observations on the state in which the aorta has been found (*i. e.*, generally diseased), and on the mode of formation of dissecting aneurism, Dr. Peacock notices the cause of death. The following are the conclusions at which he arrives from an analysis of the recorded cases.

"1. When the internal ruptures are situated near the heart or in the ascending aorta, or at the commencement or transverse portion of the arch, the probability is that the patient will die suddenly, or only survive for a few days. The fatal result is usually in such cases determined by the escape of blood into the cavity of the pericardium, or more rarely into the cellular tissue and left pleural cavity, or by the rupture of the whole of the coats of the vessel in some other part, or of one of the cavities of the heart. The patient may, however, rally from the first effects of the shock, and survive for some

months or years, and die ultimately from the cardiac disease and symptoms of obstruction to the circulation occasioned by the formation of the aneurism, or from secondary disease of other organs.

"2. When the internal ruptures are seated at the termination of the arch or in the descending portion of the thoracic aorta, the patient may also die suddenly, or may only survive for a few hours or days, the fatal event being determined by the escape of blood into the left pleural cavity, or more rarely into the cavity of the pericardium or cellular tissue of the mediastinum. The patient is also more likely to survive than in the former case, and only to sink ultimately from secondary disease of the heart and other organs.

"3. When the disease is situated in the abdominal aorta, the immediate effects of the rupture are less obvious, and the patient will probably die from slowly induced disease of the heart and aorta, or from other affections.

"If the disease be situated near the origin of the aorta, when the sac ruptures the external laceration generally follows a longitudinal direction, and the pericardium may give way at the same time, or may temporarily resist the pressure, so that blood may be effused beneath it and into the cellular tissue of the adjacent parts. The pericardium may be extensively torn, or the blood may escape by a small opening, or may transude without any distinct fissure." (Pp. 98-9.)

This able report is rendered complete by a carefully compiled table of the eighty recorded cases of dissecting aneurism.

Dr. Peacock also contributes, in the section on Diseases of the Organs of Digestion, an historical report on diaphragmatic or phrenic hernia.

In the same section, Dr. Leared notes a case which he saw in the summer of 1862, in the practice of Dr. Hjaltelin of Reykiavik in Iceland. The patient was a boy aged 10, affected with hydatid cystic disease of the liver. Dr. Hjaltelin punctured the cyst, and removed by a trocar a large quantity of turbid fluid with portions of the cyst-membrane. Subsequently other portions were expelled, and the boy made a good recovery. Cystic disease causes one-seventh of the mortality in Iceland.

As a record of specimens of disease, apart from any attempt to enter on the question of treatment, this volume of the *Transactions of the Pathological Society* is as interesting as any that have preceded it. It is pleasing to notice the steadily continued interest which the members of the Society take in its proceedings.

REPORT ON GUN-SHOT AND SABRE WOUNDS OF INVALIDS SENT TO FORT PITT DURING THE YEARS 1860 AND 1861. By THOMAS LONGMORE, Esq., Deputy Inspector-General, and Professor of Military Surgery, Army Medical School. Pp. 30. Extracted from the Statistical, Sanitary, and Medical Reports of the Army Medical Department for the Year 1861. Issued October 1863.

THIS, it will be seen, is only a fragment of a larger report; but in itself it is interesting to the surgeon, as, when a large number of non-fatal cases of gun-shot injury are, as in the present instance, brought together, it can scarcely happen but that one or more of them will present some points of pathological interest, or illustrative of the self-reparative powers of the human body. Mr. LONGMORE has here arranged, under the parts of the body injured, 108 cases of gun-shot wound admitted

into Fort Pitt during 1860 and 1861, and calls special attention to some of the more remarkable of them.

Among the cases of gun-shot wound of the chest, is one which is regarded as being of special interest, as the patient had been sent home from India with the history of an undoubted perforation of the lungs; whereas the progress of the case, and the state of the wound on the man's arrival at Fort Pitt, left no doubt that the ball had passed externally to the pleural cavity, but had at the same time severely injured the contents of the chest. The patient, a private of the 28th Regiment, was struck between the third and fourth ribs on the left side by a matchlock ball, which escaped at the inferior angle of the scapula. The injury was immediately followed by considerable hæmorrhage, hæmoptysis, dyspnoea, cough, and febrile excitement. These symptoms were accompanied during a fortnight by copious muco-purulent and occasionally bloody expectoration, and by much purulent discharge, with air-bubbles, from the wound in the chest. The posterior wound soon closed; the anterior wound remained for some time in apparent communication with a bronchus, but ultimately also healed. The symptoms certainly would lead one to think that the ball had passed through the lung; but, on the man's admission into Fort Pitt, nearly eleven months after the receipt of the injury, the medical officers of the institution were led to the conclusion that the ball had passed externally to the pleural cavity, principally from the absence in the cicatrix of deep puckering or adhesion, which would have been present if the lung had been injured.

That symptoms apparently denoting perforation of the lung may be produced when such an event has not occurred, has been proved by *post mortem* examination. Surgeon Home, of the 90th Regiment, says:

"I saw all the symptoms of a gun-shot wound of the lung, including copious spitting of blood, and intense dyspnoea, with subsequent inflammation of the lung, in a case where, after death, I ascertained that the bullet had simply coursed *outside* the chest, fracturing the scapula and one rib. I could not make out that any spicula even had perforated the pleura."

On the other hand, perforation of the lung may occur without producing the symptoms which are generally described as necessarily arising in such cases. Of this Mr. Longmore gives an instance—the nature of the injury having been proved by *post mortem* examination.

Among the cases of wounds of the face, Mr. Longmore gives the history of one which he believes to be unique, inasmuch as it was followed by total dumbness, without direct injury of the organs of voice.

"The patient, James Davis, 1st Dragoon Guards, a stout healthy soldier, was struck, just below the centre of the lower lip, during a charge of his regiment, on the 21st of September, 1860, at the general action of Palichou, near Peking, by a small matchlock ball weighing 7 drachms. The ball penetrated; carried away part of the alveolar process, four teeth—viz., two incisors, one canine, and one bicuspid—on the left side; travelled downwards behind the symphysis, clearing away the origins of the genio-hyo-glossi muscles in its passage, and lodged in the soft tissues of the floor of the mouth, behind the frænum linguæ. According to the history of the case, loss of the power of articulation immediately followed the wound, and never returned in the slightest

degree, either in China, or during the voyage home to England. The ball was not removed till the twenty-third day after the injury; it was then extracted from within the mouth.

"When this patient was examined in Fort Pitt, the inferior maxillary bone was found to be a little thickened at the seat of injury; viz., at the symphysis, and for about an inch and a half of the left side of the body of the bone. The power of opening the mouth was slightly more limited than natural. The gum was sunk at the place from which the alveolar process had been removed by the projectile. The tongue appeared to be somewhat wasted, and its movements, upwards towards the palate, and forwards towards the lips, rather more limited than natural. There was no evidence of muscular paralysis. The sense of taste was unimpaired, nor was there any loss of ordinary sensation. The larynx seemed unaffected. The usual laryngeal sounds could be uttered, but none of their modifications necessary for speech could be effected. The power of whistling was gone. It did not seem clear to what special cause this total deprivation of the power of articulation was due. Neither injury to the hypo-glossal nerve, if such had occurred, nor the separation of the genio-hyo-glossi muscles, seemed sufficient to explain such a total loss of speech; for no similar result has been noted after any of the numerous gun-shot wounds of the jaw, or surgical operations performed upon it, as far as surgeons have recorded the cases."

In order to ascertain that there was no malingering, Mr. Longmore requested Mr. Legge of Wiveliscombe, in which neighbourhood the man was settled as a pensioner after his discharge from hospital, to examine into his condition; it being concluded that, as nothing further could be gained by imposition, he would be no longer speechless if he were malingering. Mr. Legge, in his reply, states that from inquiries among the neighbours, and from an examination of the man himself, he was satisfied that the dumbness was real.

The examination by Mr. Legge took place at the beginning of June 1861; and, at the end of July 1862, the man suddenly recovered his speech while in a state of excitement, during an altercation in a public-house. In December 1862, the following was his state, as reported by the district staff-officer.

"His articulation was good, free from hesitation or any other defect; he has no difficulty in pronouncing each letter of the alphabet distinctly; he can now whistle, but not so well as he could do before his wound; he can masticate food thoroughly, but does so chiefly on the right side of the mouth, the opposite to that originally injured."

Dr. Aitken, the author observes, attributed the loss of speech in this case to the injury of the insertions of the genio-hyo-glossi muscles, and to the probable disturbance of the ninth pair of nerves by the inflammatory action exerted in the neighbourhood of the spot where the ball lodged. Mr. Longmore objects, however, that if the aphonia had depended on these injuries, and its restoration on their repair, the speech should have been recovered not suddenly, but gradually, as the injured parts recovered and regained strength. He is rather inclined to attribute the dumbness to "nervous shock", in addition to the structural lesions, and to class the case with those instances of temporary aphonia which sometimes occur from hysteria, fright, etc., and where the recovery of speech is often sudden.

This pamphlet of Mr. Longmore's is an interesting and valuable contribution to military surgery.

British Medical Journal.

SATURDAY, DECEMBER 19TH, 1863.

IRIDECTOMY.

As our remarks on the operation of iridectomy have been in some quarters misunderstood, we will again state broadly the grounds upon which we have thought it right to bring the subject so prominently under the consideration of the profession.

We on a former occasion remarked, that iridectomy differed from all other operations in surgery in this remarkable particular, that those who practise it can give no satisfactory account of its manner of action; that, in fact, it has no clear and well definable principle to rest upon, such as all other operations in surgery have. Of course, we readily admit that this is no proof that the operation is not a good and useful one; it merely indicates that it differs in this striking particular from other operations in surgery. Moreover, it must be remembered that iridectomy has not been universally accepted by surgeons as of service. If it had, there would not have been another word to say on the subject, even though its principle was unexplained. It would have been left to be judged of by its fruits. But such is not the case. Consequently, the profession at large naturally demand especial proof of its production of good results, before they admit it into the position of an established operation.

We assuredly have no other object in discussing the matter than that of attempting to bring about an early settlement of a question on which manifestly depends the loss of sight or the gain of sight to a large number of our fellow-creatures. If iridectomy be a proper and needful operation, then those who do not practise it *must*, according to iridectomists, sacrifice many of their patients' eyes; and, *per contra*, if it be a useless operation, or one which should be only rarely resorted to, it must be a very injurious operation as at present practised. No one, therefore, can object to a calm discussion of so important a matter. Only out of such discussion can come what all desire—truth.

We believe we are stating what is accurately true, when we say that no metropolitan master-oculists, excepting Mr. Bowman and Mr. Critchett, have given in their adhesion to the practice of iridectomy, at least as practised by those gentlemen. It is true that many distinguished gentlemen of the rising generation of oculists, who will doubtless one day be our master-oculists, have accepted and practise the operation; but these gentlemen do not yet occupy the position of the highest authorities in ophthalmic surgery in the profession. What, indeed, leads us

to desire a free discussion of the subject is the fact that the large body of those gentlemen to whom we especially look, as to our authorities, in matters oculistic, do not perform, but rather reject, the operation, or perform it only in the rarest instances. Mr. Bowman's name, it is true, is a host in itself; but still we are sure that he would not be the man to tell us to slight or undervalue the opinions of men of the position and experience of Dr. Jacob, of Dr. Mackenzie, of Mr. Lawrence, Mr. Wilde, Mr. Dixon, Mr. White Cooper, Mr. Haynes Walton, Mr. Hancock, and others of their great authority. The opinion of these gentlemen (although we speak without authority), unless we are much mistaken, is decidedly adverse to the operation of iridectomy, as at present practised. True, mere authority cannot settle a question of this kind; but when such an array of special oculistic talent—not of bigoted men, but of men who have shown themselves on all occasions to belong to this age of advanced science—do not give their assent to iridectomy, surely we have a right to hesitate before we admit that the problem—this operation—has yet been definitively solved. If Mr. Bowman, and those who are of his school in this matter, are right in their judgment and practice, then clear as the day is it that the negative practice of the famous ophthalmic surgeons above named must be most prejudicial to the interests of their clients. Mr. Bowman says: If you iridectomise not that tensioned eye, the eye will be irrevocably lost. His own words, again, are: "Those who reject it have to explain whether they still employ these unavailing remedies (bleeding, mercury, leeches, etc.), or leave their patients practically untreated."

Now, these men of large practice, into whose hands, therefore, must daily fall the very cases which, according to Mr. Bowman, demand this in his view inevitable operation, do not perform it. Consequently (and still following Mr. Bowman's argument and views), they must daily sacrifice the eyes of those who fall into their hands afflicted with orbital tension. And, *per contra*, if these gentlemen are right—if iridectomy be not an inevitable, be not a necessary, be not a desirable operation—if it be an operation in whose performance is necessarily involved more or less of a spoiling or damaging of the organ—if it be an operation necessarily attended with more or less of risk to the organ—if, in a word, it be an operation not required or proper for the cure of the affection for which it is practised by iridectomists—we need hardly say, that the sooner the fact be declared, the better for ophthalmic patients.

Hence, then, it is manifest, whichever side of the question be the true one, that for the sake of humanity's vision, the sooner the differences of opinion be healed up, the better. We do not presume to offer any opinion on the merits of the operation; but

every one is able, without any special knowledge on the subject, to argue upon the position of the operation—upon facts of this kind, when they are brought under his notice; and it is our duty so to argue them. Manifest, as we have said, must it be to every one, that the sooner an agreement is come to upon the subject between ophthalmic surgeons, the better will the interests of their patients be served. *In the present position of the question, humanity's vision is evidently a sufferer.* We must once again press home this unanswerable position: If, in a numerous class of eye-affections, the vision cannot be saved except by iridectomy, those gentlemen who do not perform iridectomy must sacrifice a large number of their patients' eyes to the non-performance of it. Indeed, Mr. Bowman tells them that they do in fact, by not performing iridectomy, leave their patients thus untreated, and so subject them to irreparable loss of vision. If, on the other hand, in the same class of eye-affections, vision can be restored without the performance of iridectomy, or if the vision do not suffer or be not permanently lost through the non-performance of iridectomy—if, in a word, the operation be superfluous—then those gentlemen who perform iridectomy in all cases of ocular tension must perform an unnecessary operation—an operation in which serious injury may be done to the ocular apparatus, and which may produce even destruction of the organ; and, we suppose we may safely add, occasionally does so.

Such is the exact position of the case, as it presents itself before us. The dilemma is manifest, and is not of our making. We merely record it; and it is, for obvious reasons, a very painful and serious dilemma. Every one, therefore, from whatever point of view he regards the operation, whether favourably or with disfavour, must perforce admit that it occupies a very undesirable position in the hands of the profession and in the face of the public, one decidedly opposed to the interests of humanity and to the renown of the profession.

In conclusion, we would recommend the above particulars to the consideration of the *Medical Times and Gazette*, that journal having, with remarkable sagacity, assured the profession that, if iridectomy be a good operation, it is so; and that, if it be not, it is not so; and, therefore, that there is nothing more need be said about it.

VILLAGE HOSPITALS AND GRATUITOUS SERVICES.

MR. NAPPER is labouring under a mistake. We have never said one word in disfavour of village hospital. On the very contrary, we have on several occasions praised them as highly desirable institutions. We hope, in fact, that they may rise up all over the country. Their benefits are manifest. They bring

to the door of the poor sick man the blessings of a hospital, and of a hospital in the country. They are much more economically managed, and more healthy than large hospitals in cities can be; and they enable the village surgeon to perform the great operations of surgery under satisfactory circumstances. All this we have said, and still say, in praise of village hospitals. But we have opposed, and still oppose, their being carried out on the gratuitous medical services principle, just as we oppose that principle as adopted in our hospitals and dispensaries. We are anxious not to see through them so vicious a principle—one, as we judge it, so injurious to the standing and credit of our profession—carried out still further into practice, as it will be, and on a most extensive scale, if village hospitals are to spring up all over the country, and to be worked on such principle.

Let us see what Mr. Napper has to say in favour of this method of giving gratuitous medical advice. He tells us, in the first place, that medical men give their services gratuitously, in part, out of a pure love of charity. Now, we cannot say that there may not be some few spiritually minded doctors who do this work for conscience sake; but, certainly, every one knows that gratuitous medical services are, as the general rule, given not for charity's sake, but out of pure selfishness—i.e., because the giving of those services is supposed to promote indirectly the worldly interests of the giver of them.

If the pure love of charity ruled in our medical hearts in this matter, how comes it that so many of our best and wisest men throw up the giving of these gratuitous services when they have "got into good practice?"

Again, ask the public what they think of the "charitable" motives of hospital aspirants who pay £1000 election expenses for the honour of giving gratuitous services. The public has long since taken our measure on this score, we may be very sure. It appears, moreover, that village hospitals are of use as easing the labours of the parish doctor; that, in fact, they assist in doing the work of the parish!

Mr. Napper does not answer the main question; viz., why should not the village at large—i.e., society—find this medical relief for its poor just as it finds bread for them? Why should the doctor give advice gratis any more than the butcher his beef, or the baker his bread, to those hospitals? We have long and seriously studied the subject of gratuitous medical services, and we have been forced to the conclusion that the giving of them has degraded, and is degrading fearfully, the social position of our profession; and is the main cause of the wretched condition of our Poor-law medical officers.

As for acts of true and real charity, what doctor is there who has not abundant opportunities of exercising them in private; and in cases, too, where he

knows that his gratuitous services will be rightly applied—*i.e.*, not abused? But this unknown and private exercise of the gift is not enough for us; we must ask permission to do the charitable in public! Well, let Mr. Napper, or any one else, tell us the grounds upon which a medical man alone, of all members of society, is to be called upon to come forward and do the work of society gratuitously. Let any one give us a satisfactory reason why he should not be paid for the work, as every other member of society is paid. We have long asked for a good answer to this simple question; but we have in vain waited for an answer to it. When one can be given, then will we admit that gratuitous medical services are justified.

We can only repeat, that we regard village hospitals as blessings to the poor; that it is not against them we wage war, but against the system which brings medical men to do the work of them gratuitously. Mr. Napper must have strange ideas of the real interests of the provincial practitioners, if he imagine that we oppose those interests by endeavouring to obtain for our medical brethren in the country something like a remuneration for their services. We give Mr. Napper all praise for his labours in this direction; and we are sure, that if he will only study the question, he will ere long confess with us, that if it be the duty of society to provide a village hospital, it is equally the duty of society to pay the village surgeon who does the work of it. We must repeat it again, that we firmly believe nothing has done more to degrade and lower our profession in the estimation of the public than the enormous system of gratuitous medical services carried on by us; and, therefore, it is that we proclaim against an extension of this system into village hospitals. If it is so extended, the result will be, that throughout the kingdom we shall have the village doctors falling down on their knees before the village butcher and tailor, etc., subscribers of five shillings each to the charity—just as we now have London doctors falling down before city merchants—begging those gentlemen to bestow upon them the honour of doing the work of society, gratuitously. And we shall have the butcher and tailor graciously condescending to accept those services, and then laughing in their sleeve at the folly of the doctors; and, what is worse, we shall still further lower the value, the money-value, of our services in the eyes of the public, and our own reputation.

THE COLLEGE OF PHYSICIANS.

THE College of Physicians have accepted a medallion from the friends of the late Dr. McWilliam, and have resolved that the same shall be suspended on the walls of the College.

The College has also appointed a Committee to meet a Committee of the Society of Arts to decide, in January 1864, who shall be the next recipient of the "Swiney Prize." Our readers may remember that the prize is a quinquennial one, and that the Society of Arts and the College of Physicians have agreed that the prize shall alternately be given to the author of the best work on General Jurisprudence and of the best work on Medical Jurisprudence. Three prizes have already been allotted. The first was adjudged to Dr. Paris; and the third to Dr. Taylor. The next prize will be given, therefore, for General Jurisprudence. The United Committee have agreed between themselves that the College shall virtually have the appointment of the medical jurisprudential prizemen; and to the Society of Arts is left the selection of the general jurisprudence prizemen.

Thirteen candidates were, on the 1st instant and subsequent days, examined by the College of Physicians for the first professional examination, and of them ten were accepted. On the 8th inst. and following days, nineteen candidates for the passing of the final examination for licence appeared, and of them fifteen were approved.

We are very glad to find that the delivering of the Harveian oration in Latin will, at an early day, be brought as a question before the College. We apprehend, most physicians must feel that this Latin oration is, at the present time of day, a complete anachronism. Science, fortunately or unfortunately, has to a very great extent, put out the light of classical lore with men of medicine. At all events, it is a fact, that the Fellow of the College who is capable of delivering a classical oration in the Latin tongue is a very rare personage; and it is equally a fact, that if an erudite and elegant classic were to deliver himself even with Ciceronian cadences within the walls of the College, his words would fall on the ear of the multitude of his auditors as "caviare into the mouth of the general." One cannot, it is true, look back without a sigh to the days when our physicians played the part of scholars before the world as well as of practitioners of medicine. Nor can we conceal from ourselves the fact, that the social position and the public influence of the profession were then much higher and greater than they are now. However, we must accept things as we find them; and, therefore it is, in the name of the fitness of things, we cannot but hope the College will come to the conclusion that in future days (if the charter says nothing to the contrary), the Harveian oration shall be delivered in a tongue, which the Fellows, as a body, can handle with some effect, and comprehend without the aid of a dictionary.

POOR-LAW BOARDS' LAW.

THE following letter from a medical man at Leighton Buzzard, in the *Times*, affords another specimen of the systematic ill-treatment of Poor-law medical men by their masters. When will the members of our profession be wise enough and bold enough and patriotic enough to combine together, and so for once and all put an end to the degradation played off upon them by the public through their own want of union and professional sympathy?

"In July of this year, the medical officer of the Leighton Buzzard Union died of fever, contracted in the exercise of his duties. Pending the appointment of his successor, I performed a part of the duties of medical officer, and found that in the village of Wing (where fever and small-pox were prevailing) between 30 and 40 per cent. of the inhabitants were unprotected by vaccination. By verbal authority of the Board, I vaccinated nearly 300 persons, and arrested the pestilence. The Board of Guardians now inform me they are unable to pay my fees, some recent regulation of the Poor-law Board not having been observed."

THE WEEK.

THERE is one suspicious fact attached to the evidence given by Dr. Forbes Winslow in favour of the lunatic state of mind of Townley the murderer, which we are surprised was not alluded to by the judge presiding at the trial. It seems to us, that the murderer Townley must indeed have been utterly imbecile had he not guessed the meaning of Dr. Winslow's two visits to him. He might have been ignorant as to who his questioner actually was; but it seems absurd to think that he could have had such questions put to him for an hour at a time without suspecting the object of them; and if so, what more natural than that he should give the outrageous answers he did to Dr. Winslow, it being manifestly his interest to do so, if he wished to save his neck. Dr. Winslow deemed the case to be one of "general derangement"; but there was no proof of the existence of any such derangement in him at the time of the murder. Again, the suggested delusion of a conspiracy which Townley communicated to Dr. Winslow, was heard of by no one else, we believe, besides Dr. Winslow; and certainly, if real, only appeared after the murder. We must say, that a suspicion must naturally attach to the value of conclusions drawn from conversations with a man who, as a reasonable man, would naturally, under the circumstances, attempt to produce in the mind of a questioner an idea of his insanity. We have, on many occasions, laboured to save the necks of murderers, whom we could not but deem lunatics, from the hangman's rope; but we really cannot find any excuse on the ground of insanity to put forward on behalf of Townley. We were pleased, however, to notice that the judges are coming round to more

reasonable views on the subject. Judge Martin made a great advance for the bench when he gave it as his opinion, that delusion, if the cause of the crime, will excuse it. This is a vastly different doctrine from the old one of a knowledge of right and wrong. Judge Martin, indeed, seemed to treat the whole question in a much more kind and calm way than we have of late seen it handled by the bench. Dr. Seymour and Dr. Tuke were present at the trial on behalf of the Crown; but it was not thought necessary to call them. It is very probable that Baron Martin may yet have the man examined by a Visitor in Lunacy.

THE right of the King and Queen's College of Physicians will, we are glad to find, be at last brought to its proper and only real test—a legal one. Trinity College has questioned the right, and has called upon the King and Queen's College to make it good in Chancery, if it can. The Chancellor has, however, refused to decide the matter, as he is Vice-Chancellor of the Queen's University, which is interested in the result. The question has, therefore, been sent to the Master of the Rolls; and, if an appeal be made, will then probably go to one of the common law judges—the chancery judges being vice-chancellors, one of the University of Dublin, and the other, as said above, of the Queen's University. We may remark, in reference to this case, that some of our cotemporaries have entirely mistaken the purport of the trial. Two journals have stated that the decision will settle the question of the title of "Doctor"; but it will, in reality, have nothing whatever to do with it. The question to decide is simply whether the King and Queen's College has or has not the right, which it has assumed since 1860, of granting degrees in medicine, just as universities have. The question of the title of Doctor is, we consider, settled. Every member of a College of Physicians can assume the *courtesy* title of Doctor—i. e., prefix the Dr. to his name; but assuredly he has no right to call himself Doctor in Medicine, or write M.D. after his name, as the King and Queen's College assert that their Licentiates have, unless he possess a university degree. We believe that the thanks of the profession are greatly due to this JOURNAL for having urged on them the necessity of such a settlement of the position assumed by the King and Queen's College of Physicians.

WE trust Mr. Dickens felt a blush tinge his cheeks when he lately read in the *Times* "A Horrible Story". At the very time when Dr. Byrne of Falmouth was engaged, and labouring out of pure philanthropy, in putting an end to the tortures inflicted on a poor idiot at Flushing, Mr. Dickens, through his head sensation-novelist, Mr. Reade, was holding up the medical profession to the indignation of the

country as a set of scoundrels, ready, for a few guineas, to immure and keep immured in a madhouse any person whom it was convenient to his relatives to put out of the way. Mr. Dickens may be well assured that the slur attempted to be cast, with his permission, through *All the Year Round*, on the medical profession, is not a thing which will redound to his credit or will add to his laurels. When literature condescends to seek popular applause by slandering an honourable profession, literature has descended to the position of a mere mercantile transaction.

THE regretted death of Mr. Green makes a vacancy in the Court of Examiners of the College of Surgeons; and the occasion offers a favourable opportunity to the Council for the carrying out the intention of the Charter—one of the express objects of the Charter which has hitherto been completely disregarded—we mean the appointment of an Examiner from the Fellows outside the Council. The Council can no longer say there is no precedent for such a thing, because now, in consequence of a most unexpected *force majeure*, Mr. Cæsar Hawkins is an Examiner, although no longer on the Council. We sincerely trust that the Council will seize this opportunity of showing by its practice that it really intends to inaugurate the new era of liberalism which, it is supposed, has begun to prevail within its body; in fact, that it will carry out the Charter in spirit and in letter.

At the end of every session, the Royal Medical and Chirurgical Society is overwhelmed with papers, and consequently with the complaints of their authors that they can only be read in brief; and, on the other hand, at the beginning of every session there is usually a perfect dearth of papers. We notice that, at the present moment, there is not a single paper set down for reading on the paper-list suspended in the library of the Society. Perhaps this hint may be of service to the slow of pen and the full of knowledge.

Two new journals are announced in France literary and scientific—*Le Revue des Cours Littéraires*, and *Le Revue des Cours Scientifiques*. They are reproductions of the lectures delivered in the College de France and the Museum. Scientific journalism appears to be a better trade on the continent than it is in England, Scotland, and Ireland.

For the first time since its foundation—that is, for forty-three years—the Academy of Medicine has exercised its right of excluding an offending member. The offender is a Dr. Priou; and his offence that of placarding and disfiguring the walls of Rouen with unseemly advertisements. Doubtless the doctor finds the placarding business pays better than academical honours.

Association Intelligence.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
WEST SOMERSET. [Conversazione.]	Clarke's Castle Hotel, Taunton.	Wednesday, Jan. 20, 1864.

PAYMENT OF SUBSCRIPTIONS: SPECIAL NOTICE.

MEMBERS who have not yet paid their subscriptions for the present year are earnestly desired to remit them to the General Secretary before the end of December. Their attention is directed to the following laws of the British Medical Association.

15. The subscription to the Association shall be One Guinea annually; and each member on paying his subscription shall be entitled to receive the publications of the Association of the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous. If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid.

10. The name of no member shall remain on the books of the Association, whose arrears extend over three years; but the omission of the name from the list of members shall not be deemed, either in honour or equity, to relieve any member from his liability for the subscriptions due for the period during which he has availed himself of the privileges of membership.

T. WATKIN WILLIAMS, *General Secretary*.

13, Newhall Street, Birmingham, December 1st, 1863.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held in the Victoria Rooms, Clifton, on November 27th; FRANCIS K. FOX, M.D., President, in the Chair. There were present thirty-nine members and six visitors.

New Member. Benjamin Maurice, Esq., of Thornbury, was elected a member of the Association, and of the Bath and Bristol Branch.

Papers. The following papers were read.

1. Cases of Obscure Brain-Affection. By F. Brittan, M.D.
 2. Case of Malformation of the Temporal Bone. By C. Leonard, Esq.
 3. On Laryngismus Stridulus. By E. L. Fox, M.D.
- Several other papers had to be postponed, on account of the late hour of the evening.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

A GENERAL meeting of the above Branch was held on Thursday, December 10th, in the Medical Department of the Library, Union Street, Birmingham; ALFRED BAKER, Esq., President, in the Chair. There were also present sixteen members.

New Members. The following gentlemen, having been elected at a previous meeting of the Council members of the Association, were unanimously elected members of the Branch:—1. Dr. Robert Alexander Davis, County Asylum, Stafford; 2. Mr. Thomas Kelly, Princes End, Tipton; 3. Mr. Edmund Gibbs, Digbeth, Birmingham; 4. Dr. Thomas Albert Carter, Leamington; 5. Mr. Ed-

ward Welchman, Southam; 6. Dr. S. S. Roden, Droitwich; 7. Mr. T. W. Walsh, Worcester; 8. Mr. Thomas Taylor, Bennett Hill, Birmingham; 9. Mr. B. S. Wilders, Birmingham; 10. Mr. G. Yates, Bath Row, Birmingham; 11. Dr. C. B. Suckling, Birmingham.

Papers. The following papers were read.

1. Therapeutical Inquiries. III. Oil of Male Fern in Tapeworm. By A. Fleming, M.D.

2. The two Circles of the Blood historically considered. By J. S. Gamgee, Esq.

3. Case of Hæmorrhage from Retained Placenta, after Abortion, terminating fatally. By G. Lowe, Esq.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

NOVEMBER 25TH, 1863.

ALFRED HIGGINSON, Esq., Vice-President, in the Chair.

Trough Water-Closets. Mr. HAKES said that the use of trough water-closets for the courts in this town was now under consideration, he should be glad if any one could inform him as to the nature of these troughs.

The CHAIRMAN said they were already in use in some of the charity schools and other institutions in this town. A trough, built sometimes of brick, but more frequently made of cast-iron, is placed under half a dozen seat-holes. There is a decline of several inches from one end of the trough to the other. The whole apparatus is kept under lock and key, and flushed out once a day.

Cauliflower Excrescence of the Uterus, removed together with a Portion of the Uterus. Dr. NOTTINGHAM shewed this specimen. The tumour filled the vagina; and it seemed doubtful whether the chain of the ecraseur could be passed behind it. By means of blunt hooks the uterus was brought down very slowly and completely, then a curved ecraseur was passed behind the disease and the vagina and uterus very slowly divided. This process took a quarter of an hour; no knife was used, and there was no hæmorrhage at the time, but a little occurred half an hour afterwards. The woman was about 38 years old, and the disease of about 18 months' standing; her general health was not affected.

Cancer of the Lip. Dr. NOTTINGHAM shewed a specimen, and also one of *Disease of the Tibia*.

Urinary Calculus. Mr. RAWDON shewed a stone peculiarly shaped, narrow in the middle and expanded at the ends, somewhat like a dumb-bell, removed from the bladder of a boy, aged 12, by Mr. Stubbs, at the Royal Infirmary.

Congenital Fibrous Tumour. Mr. RAWDON also shewed a congenital fibrous tumour, of the size of half a pigeon's egg, removed from a child's head.

Dry Gangrene of the Foot. Mr. RAWDON shewed a specimen of this disease, which occurred after fever. Mr. Bickersteth had amputated the foot at the ankle-joint.

Fracture of the Spine. Mr. LOWNDES shewed a specimen in which there was complete transverse fracture of the body of the first lumbar vertebra, and fracture of one of its transverse processes. The patient lived three weeks.

Disease of the Suprarenal Capsules. Dr. IMLACH read a case of this disease, and shewed a specimen of the same disease taken from another subject.

Uterine Hæmorrhage. Dr. E. WHITTLE read the following case. At 9 P.M., on Sept. 21st, 1863, he was called to see Mrs. L., aged 35, who had been attended all day by a midwife. This was her sixth confinement, and her last was five years ago; she was of hæmorrhagic diathesis. He was told that she had complained of slight pains all day, and when sitting up to take tea felt suddenly very

ill, complained of abdominal pain, and fainted away. On his arrival he found her ghastly pale, collapsed, covered with cold sweat and nearly pulseless. The abdomen was hard and tender, but there were no uterine pains; she complained of great pain and tenderness over the region of the bladder; the os uteri was dilated to the size of a crown-piece; the head presented, and had not receded, and the membranes had ruptured. As the head had not receded, and the pain was not at the epigastrium internal hæmorrhage was diagnosed. Brandy was given from time to time, and 20 minims of tinct. opii at once. At 10 P.M. there was a considerable rally, pulse 84, pretty steady; pains were now beginning, but the labour progressed slowly; a catheter was passed, but there was found to be no retention of urine. At midnight he gave a dose of ergot with the double purpose of assisting the labour and of checking any tendency there might be to *post partum hæmorrhage*. Sept. 22nd, at 2 A.M., as the patient's pulse was now 120, and she was getting exhausted, Dr. Whittle applied the forceps and removed a very large child that had evidently been dead some hours. Its removal was immediately followed by a very large clot, much resembling a liver in shape, about ten inches long, three in thickness, and from five to seven in width; one of its edges was thick and bound together along its whole length by a fibrous mass resembling the buffy coat of blood, the other edge thin like the thin edge of the liver. This clot would seem to represent nearly two quarts of blood. The after-birth followed immediately, and there was no hæmorrhage. Convalescence was tedious, and a troublesome diarrhœa commenced on Oct. 28th, which yielded gradually to the use of opium and counter-irritation to the abdomen. The large clot appeared to him to be the cause of the hypogastric pain, by distending the uterus and pressing the child down; the sudden abstraction of so much blood from the circulation would seem to have occasioned the death of the child.

The CHAIRMAN inquired as to the appearance of the child, whether it seemed to have been long dead; it is highly valuable to know in such a case whether the child is alive or no, and he finds the stethoscope very useful.

Dr. WHITTLE replied that the child seemed to have been dead some little time.

Mr. HODGSON inquired whether the opium was given directly after the hæmorrhage was supposed to have taken place; is opium useful or injurious in these cases?

Dr. WHITTLE said that some time had elapsed before the opium was given.

Mr. HAKES said that he had seen cases of internal hæmorrhage where the child had died and very large clots had passed afterwards, but in these cases the membranes are generally unruptured.

Dr. NOTTINGHAM thought the appearance of the clot with its firm fibrous back would lead us to suppose that its formation would take a longer time than the history of the case would point to.

JUNIOR MEDICAL SOCIETY OF LONDON.

TUESDAY, NOV. 17, 1863.

J. E. CHURCHILL, Esq. (Vice-President), in the chair.

Pathological Specimens. The following specimens were exhibited:—

1. A Fibrous Tumour of the Uterus, of very considerable size. By Mr. Willson.

2. Portion of a Foot removed by a Modification of Chopart's Operation. By Mr. Fennings.

3. An Atheromatous Aorta which had Burst into the Pericardium. By Mr. Sutcliffe.

Treatment of the Earlier Stages of Phthisis. A paper on this subject was read by Mr. WILLSON (Charing Cross Hospital). The author first drew attention to the efforts of nature to effect a cure, as evidenced by *post*

mortem examination. The average duration of life, he said, was longer than was generally believed, tubercles being often found in the lungs with the inference that they had existed for a very considerable time. He dwelt next upon the symptoms and diagnosis of the very early stage of phthisis. The disease does not usually manifest itself until after the application of some exciting cause; that the principal indication in the treatment was to place the patient in as favourable external circumstances as possible; that diet, clothing, air, and exercise, should be especially attended to, in conjunction with the use of certain appropriate remedies. The system should in no wise be lowered; a diet of milk and eggs had been found of the greatest benefit. Cod-liver oil and the tincture of sesquichloride of iron were the remedies to be preferred amongst those usually employed. The author lastly referred to Dr. Churchill's plan of treatment, and fully concurred with him in the efficacy of the hypophosphites. He thought that, although much had been done of late years in improving the treatment of phthisis, still more was to be hoped from the use of hypophosphites. Whatever the treatment was, it must be rigorously persevered in. A prolonged discussion followed.

Correspondence.

IRIDECTOMY.

LETTER FROM W. BOWMAN, ESQ., F.R.S.

SIR,—The following letter, which I addressed to Mr. Walton with reference to his note in your JOURNAL of the 5th inst., will show how anxious I am that those who still reject iridectomy in glaucoma should have every opportunity which I may happen to be able to afford them, of examining for themselves the kind of evidence on which it is supported. I regret that, in the courteous reply which I have received from him, Mr. Walton does not accept my offer; so that I think I may safely leave the question to rest for the present in the position in which my recent communications have placed it, reserving any further comments on his own opinions in particular, until he shall have explained the grounds on which they rest, in the paper he has promised to send you.

I am, etc., W. BOWMAN.

5, Clifford Street, Dec. 15, 1863.

Letter from Mr. Bowman to Mr. Walton.

5, Clifford Street, Dec. 11, 1863.

MY DEAR WALTON,—I see by your note in the BRITISH MEDICAL JOURNAL of last week, that you have taken notice of the discussion that has been going on there relative to the use of iridectomy in glaucoma. I had an impression that some of my brethren in London put less confidence in this treatment than I do myself; but I confess I was not prepared for so absolute a disbelief in its efficacy as you avow, when you say that you "have not been able to discover that the removal of a piece of the iris has ever exercised the slightest influence over any inflammatory condition of the eyeball, nor over the disease called glaucoma."

The issue you thus raise is a most satisfactory one to me—that, namely, of the simple question of fact; I and others adducing the evidence of plain facts in support of our assertion of the efficacy of a definite operation in a well defined disease, while you rejoin that you have not been able to discover the slightest advantage in this method of treatment.

Now as Nature is the same, whoever interrogates her, we may most probably best reconcile these conflicting opinions of men alike competent to observe, and alike conscientious in arriving at their results (excuse the

compliment I am paying myself), by supposing that they have not witnessed facts of the same kind or order, though they may have seemed the same; or else, that the facts on the one side have been imperfectly investigated, owing to causes incidental to the novelty or the inherent difficulty of the subject matter.

The natural way of reconciling these differences, and one, I think, very suitable among men labouring in such a profession as ours, is for those who differ to meet, and examine the disputed facts in concert; to interrogate one another with the cases before them, and with a simple desire to arrive at sound conclusions.

This, surely, would be very easy in the present instance. We assert, you deny, the efficacy of iridectomy in glaucoma: our side of the question is of a positive, yours of a negative, character. If ours be true, a great boon has been provided for the patients of us all; if yours, we shall have still to treat glaucoma by the old methods, and with the old results, until some other remedy with more valid pretensions shall be discovered. It is impossible, therefore, but that you and all thoughtful men, having to treat glaucoma, should at present desire the benefits of iridectomy to prove real. Besides, as a question of scientific interest, few can be indifferent to it.

Now, what occurs to me is this. I have patients who have been thus treated, and whose cases may be placed fully before you, so as to enable you to form an independent opinion upon the results obtained. You express a determination to avoid controversy; and, of course, I have no wish for a conflict of words. But I think your position is such, and you make such use of it in writing adversely to iridectomy, that I have a claim to ask you to take some trouble, and spend some time if necessary, in examining the cases of alleged success. The profession at large do not feel competent to come to a decision, while men, whose opportunities they regard as equally great, are found so directly at variance on a simple matter of fact—one which seems to admit of being easily settled between the opposite parties, if they would only first come to an understanding as to the diagnosis of glaucoma, and then by touch and other equally indubitable means ascertain the physical condition of a glaucomatous eye, as to tension and visual power, before and after an iridectomy properly performed.

My object in now addressing you is to offer, with all the frankness of professional courtesy, and in the interest of our patients who are now suffering from glaucoma, to give you all the details in my power of such cases as may happen to be most accessible, and to show you the individuals who have been operated on. I will be present with you, and will promise you to have no reservations. It would be affectation in me, did I express the smallest doubt as to your coming to the same conclusion as myself regarding them, or as to the perfect readiness with which you would afterwards undertake a further trial of the method, and in due course publish your own approval of it to the world. There seems to me so much misconception prevailing (I know not why) on the whole subject, in spite of the efforts of myself and others to make it plain, and spread a correct knowledge of it, that I should be very glad that you should thus re-investigate it a little from what I may call our side, before committing yourself further by the practical statement of your present views, which you promise to send to the BRITISH MEDICAL JOURNAL as soon as you can find time to settle to the work.

I have only to add, as in duty bound, that I, on my part, shall have great pleasure in seeing in your company any patients of yourself or others, whose cases may have led you to your present opinions; and I am sanguine that I shall be able in a great measure to explain in what way they may be reconciled with the views I advocate.

I am, yours sincerely,

Haynes Walton, Esq.

W. BOWMAN.

LETTER FROM HAYNES WALTON, ESQ.

SIR,—I suspect that you will receive this week from Mr. Bowman the copy of a note which he sent to me, expressing his desire to show me his cases of iridectomy, and to examine patients with me; also a statement to the effect that I declined to acquiesce in his proposals. If I am correct in my suspicion, allow me a few words in explanation.

I wrote, in answer to his first note, to say that circumstances would prevent me from having anything to do with the subject in question for a week or ten days, and that I should not make any move in the matter in any way till I had communicated with him. In answer to this, he said that he must notice, in the coming number of the JOURNAL, my note published on the 30th of November; and continues: "*As it would not be desirable to say that you are not well, perhaps I had better say something to the effect, viz., that I have received from Mr. Walton a communication expressing his readiness to compare cases with me, which will afford me the hope of being able to bring the matter shortly to an issue, so far as his opinion is concerned.*"

Now, I was obliged to say "No" to this, because it would have prevented me from sending my opinions, which I have promised you; and I should have formally given up my judgment. Will any one say that I am to blame? Had I supposed that Mr. Bowman ever meditated publishing the private communications between us, and commenced by him, at the time that we were discussing the disputed subject in public, I should not have noticed his note. So little did I suspect it, that I never kept copies of my answers. The offer he makes certainly bears a very favourable impression; and many a man might say at once that this is an excellent means of adjusting differences; and so it would be between two men, one of whom was wholly ignorant of ophthalmic subjects, and one deeply learned. I have not stated my conviction at random and in ignorance, but after long investigation, with large opportunities at my command in private and in public, and with all the care, anxiety, and labour that an obscure subject demands from one who has ventured to appear before the profession as an author on ophthalmic subjects.

It would be utterly impossible even for one conversant with eye-diseases to tell, after an iridectomy had been performed, whether such an operation had really benefited the patient. This is a topic on which I shall have much to say.

When I was a student at St. Bartholomew's Hospital, the late Mr. Tyrrell, surgeon to the Royal London Ophthalmic Hospital and to St. Thomas's, introduced his system of incising the conjunctiva in purulent ophthalmia, as the only means of saving the eye, by preventing sloughing of the cornea. He thought, and so did his colleagues, and many of his professional brethren, and all his pupils, that this was the greatest discovery in ophthalmic surgery for the century. He gave several lectures on his new operation at the Royal College of Surgeons; he published scores of successful cases, and his work on the eye abounds with them. Great censure was cast on all who entertained any doubt. It happened that Mr. Wharton Jones undertook to question the propriety of all this, and to deny the theory on which the practice was founded. I read the controversy with much interest; and I was particularly struck with the invitation from Mr. Tyrrell to Mr. Jones, to come and see his cases, which he urged as an opportunity for affording Mr. Jones the fullest evidence of the correctness of his views. As a youngster, I thought this all decisive for Mr. Tyrrell. What is the state of the case now? Mr. Jones was right. Is Mr. Tyrrell's operation ever practised? or who believes in it as the all-potent remedy so much vaunted? Of course I do not cite this as a parallel, but I merely give it as an illustration of the difficulty

and uncertainty in working out any fact in the treatment of disease in medicine or surgery from the issue of cases, when such are regarded through a wrong theory, or without any principle to correct observation.

Next week I shall send what I promised; and I shall trouble your readers no more with iridectomy.

I am, etc., HAYNES WALTON.

69, Brook Street, Hanover Square, December 1863.

LETTER FROM T. WHARTON JONES, ESQ., F.R.S.

SIR,—Lateral iridectomy, or lateral excision of the iris, has been long adopted as a valuable operation for artificial pupil in the cases fitted for it—cases, in particular, of central opacity of the cornea.

The value of lateral excision of the iris in cases of extensive synechia posterior, even when the pupil was not closed nor the cornea opaque in the centre, has been admitted by Dr. Mackenzie and myself in some cases.

As to the value of lateral excision of the iris as a cure of glaucoma: when the operation was vaunted as a means of curing glaucoma, both Dr. Mackenzie and myself demurred to its trustworthiness. In the numerous cases in which glaucoma (the form called chronic glaucoma) has been treated by lateral excision of the iris, the operation has not yielded very brilliant results. In cases of arthritic posterior internal ophthalmia, or, as it is called, acute glaucoma, lateral excision of the iris has been often followed by a very satisfactory subsidence of the inflammation, with corresponding improvement of sight. The operation in such cases has appeared to promote the subsidence of the inflammation more effectually than simple evacuation of the aqueous humour.

I am, etc., T. WHARTON JONES.

35, George Street, Hanover Square, W., December 7th, 1863.

SIR,—The iridectomy discussion quite puzzles me. If Mr. Bowman's account of the matter be right (and I must say I feel inclined to trust very much to whatever he says in such a matter), the number of blind must have greatly diminished during the past seven years. I say this because, from your account, I conclude that a very great number of operations for iridectomy are now performed in this country. But how must it be in those parts where this operation appears to be unknown? Mr. Bowman, in his last interesting letter, tells us that it is the only cure which, in a large number of cases, can preserve the patients from blindness; and yet I observe in the *Eye Report* of Mr. Wilde, just issued, that no reference whatever is made to iridectomy, although a very large number of operations seem to have been performed at the institution to which he is attached. At all events, if Mr. Bowman be right, those gentlemen who oppose him must be wrong. I hope the discussion will lead to a settlement of the question; and I must say that I think some explanation is due from men in the high position of Mr. Wilde, who thus publicly ignores the existence of this operation, which Mr. Bowman assures us is of such incalculable benefit.

I am, etc.,
A GENERAL PRACTITIONER.

VILLAGE HOSPITALS.

LETTER FROM ALBERT NAPPER, ESQ.

SIR,—No one can fail to perceive, from the tone of your oft-recurring remarks on village hospitals, that you regard them in no friendly spirit. I am sorry for this, as it is much to be regretted that the Editor of the JOURNAL which was instituted by, and that for a long time represented, the interests of, the provincial practitioners, should entertain views so much at variance with those of many amongst them with whom I have had the pleasure of corresponding on this subject. The feeling in favour of these institutions appears to be universal,

and I feel sure your strongly expressed views in regard to our gratuitous services are urged under a misapprehension of the working of the system. You ask, "Do we do the work out of a pure love of charity, or is it to promote our own private ends?" I answer emphatically, for both; the first, by providing for the poor, comforts and efficient treatment, to be afforded by no other means; the second, by relieving ourselves of a great amount of labour, whilst, under their favouring conditions, we are enabled not only to confer hitherto unhopd-for benefits upon our patients, but by so doing "gain the respect and obtain the thanks of society." On the subject of gratuitous services, I have on previous occasions pointed out the hopelessness of attempting to establish a village hospital on the principle of payment for professional services, nor do I think we ought in reason to expect any larger compensation than the hospital itself is capable of affording. It must be borne in mind that a very large percentage of the patients are parish paupers, many living at great distances, entailing long, tedious journeys, and loss of time. Others, not entitled to parochial relief are incapable of affording the smallest compensation, and for these the surgeon can obtain no extra allowance of diet. The great saving in time and labour, the facilities afforded in treatment, with the good nursing, and liberal diet, thus secured, are no mean advantages to the parish doctor; added to this, he receives the usual fee allowed by the Poor Law Authorities for every pauper case admitted, whilst surgical appliances, medicines, etc., are provided.

The Fourth Annual Report of the Cranley Village Hospital is now in course of printing, and with it will be published an epitome of the cases treated during the first four years, amounting to one hundred, by which it will be seen that of this number 77 were parish paupers, 7 were persons totally unable to afford compensation to a surgeon, and the remaining 16 were all in humble circumstances. Of the 77 paupers 10 were cases of accident, for which the surgeon received the usual fees amounting to £36. And now, sir, I must respectfully ask, will "the baneful results of such gratuitous medical services as these, degrade the social position of our profession?" Having asked these questions, I must request the favour of your giving insertion to this reply, in justice to those who are working with me in promoting a scheme that we venture to hope will be attended with a very different result.

I am, etc.,

ALBERT NAPPER.

Cranley, Dec. 1st, 1863.

THE PLEA OF INSANITY IN CRIMINAL CASES.

LETTER FROM FORBES WINSLOW, M.D.

SIR,—May I be permitted to state, in reference to the evidence I gave at Derby in the case of George Townley, that I pronounced no opinion as to his insanity on the 21st of August, the day he committed the murder?

Having, as I thought, recognised, in common with Mr. Gisborne, the surgeon to the prison, and Mr. Sims, the governor of the jail, mental derangement on the 18th of November, and on the 10th inst., I said, in reply to a question put by Mr. Macaulay, "Assuming the prisoner to have been in the same state of mind on the 21st of August as he was at the time of my examination of him in the Derby County Jail, I was of opinion that he was *then* (as he is *now*) deranged in his intellect, and consequently legally irresponsible." I purposely avoided propounding any speculative opinions on the subject of his alleged insanity at the time of the murder, rigidly adhering to a statement of facts observed by myself.

In the course of my analysis of Mr. Townley's state of mind, I could not altogether set aside his singularly perverted views on the subject of religion; but I carefully avoided all misconception on the subject by stating, in

my written opinion, "that it would be most unphilosophical to infer the existence of insanity from the theological views of the prisoner or of any person."

I distinctly referred, in my evidence, to the prisoner's intellectual delusions, as contradistinguished from what may be termed his *moral* perversion.

He informed me that he killed Miss Goodwin in order to "recover" and "repossess" himself of property that had illegally been wrested from him by an act of violence. He was perfectly unable to appreciate the absurdity of this idea.

If a man were to throw a sovereign into the Thames, and, on being asked why he did it, were to reply that his object was to "recover" and "repossess" himself of the twenty shillings thus lost to him for ever, would he, if he persisted in this assertion, be considered of sane intellect?

As an additional proof of his intellectual derangement, I referred to his insane belief in the existence of a conspiracy against him, consisting of six persons, with a chief at their head. Mr. Baron Martin, in his charge to the jury, pointedly alluded to this delusion, and remarked that it frequently existed among insane persons.

I am, etc., FORBES WINSLOW.

Cavendish Square, December 16th, 1863.

Medical News.

ROYAL COLLEGE OF PHYSICIANS. At a general meeting of the Fellows, held on Monday, December 14th, 1863, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the science and practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Atkinson, John P., M.D., 2, Carlton Road West, New Peckham
Close, Henry Ashlin, H.M. ship *Royal Adelaide*
Fleury, Charles Robert, Peninsula and Oriental Company's Service
Harrer, Charles J. J., M.D., Vienna
Howard, John Warrington, St. George's Hospital
Hayden, William Gallimore, High Wycombe
Hewitt, William, Upton, near Birkenhead
Hide, John, 1, Ebenezer Terrace, Turner Street, Mile End Road
Hunter, John Charles, 30, Wilton Place, Belgravia
Hyde, George Edwin, Worcester
Jones, Thomas E., Llanasa, Flintshire
Ranson, Wynne Staton, M.D., Wincanton
Sheridan, John Wilton, Stowmarket
Simpson, John Henry, Maidstone
Skinner, David Shorter, Headcorn

ROYAL COLLEGE OF SURGEONS. The following members of the College, having undergone the necessary examinations for the Fellowship, were reported to have done so to the satisfaction of the Court of Examiners, and at a meeting of the Council on December 10th, were confirmed. Those gentlemen with an * prefixed to their names, also passed the preliminary examination in Classics, Mathematics, and French.

England, William, Winchester: diploma of membership dated December 8, 1847

*Greenhill, Joseph Ridge, Army, Royal Victoria Hospital, Netley: April 13, 1860

Ilott, Edward, Bromley: July 14, 1848

Langdon, Thomas Charles, Winchester: March 19, 1858

*Nesbitt, Francis Albert, Wolverhampton: May 15, 1854

At the same meeting of the Council, the following members, having been elected Fellows at previous meetings, were admitted as such.

Alexander, Charles Linton, Great Dover Street, Borough: diploma of membership dated February 18, 1842

Brown, Richard, Brighton: February 17, 1843

Penny, Henry James, H.M. Indian Army: March 5, 1841

Admitted to the *ad eundem* membership—

Robertson, John Charles George, Lunatic Asylum, Hanwell, a Licentiate of the Royal College of Surgeons of Edinburgh: January 19, 1853

About eighty candidates are now undergoing their preliminary examinations for the membership of this College.

The following members of the College, having undergone the necessary examinations, were admitted Licentates in Midwifery at a meeting of the Board, on December 16th.

Amy, Frederic, M.D. Edin., Jersey: diploma of membership dated January 30, 1862

Andrew, James Lawton, Mossley, near Manchester: May 6, 1863

Benson, Joseph Henry, Hornsey Road: January 28, 1862

Bullmore, Charles Forrester, Edinbrough: July 29, 1863

Cresswell, Alfred, L.S.A., Peninsular and Oriental Steam Navigation Company: May 1, 1865

Daton, Frederick Donal, Lansdown Road: July 30, 1863

Emanuel, Leonard, M.D. St. And., Inverness Road: May 16, 1859

Hayden, Wm. Gallimore, L.R.C.P., High Wycombe: Nov. 20, 1863

Lydall, Wketam Hawthorn, Westbourne Park Road: November 18, 1862

Mahon, George Amuseley Derville, L.S.A., Aspley Woburn, Beds.: July 30, 1862

Riddock, Edward Harris, Woolwich: July 31, 1863

Shaw, Charles Edward Martin, Crewkerne: November 19, 1863

Stott, William John, Haslingden, near Manchester: Nov. 18, 1863

UNIVERSITY OF LONDON. M.B. Second Examination, 1863. Examination for Honours.

First Class. Surgery.

Beddard, James, Scholarship and Gold Medal, Guy's Hospital

Pye-Smith, Philip H., Gold Medal, Guy's Hospital

Stevenson, Thomas, Guy's Hospital

Rivington, Walter, London Hospital

Second Class.

Clarke, Julius St. T., Guy's Hospital

Edis, Arthur W., Westminster Hospital

First Class. Medicine.

Jones, John T., Scholarship and Gold Medal, University College

Pye-Smith, Philip H., Gold Medal, Guy's Hospital

Stevenson, Thomas, Guy's Hospital

Beddard, James, Guy's Hospital

Second Class.

Roberts, Frederick T., University College

Lanchester, Henry T., St. Bartholomew's Hospital

Hicks, John W., St. Thomas's Hospital

Third Class.

Clarke, J. St. T., Guy's Hospital

Gwyther, James, Manchester Royal Infirmary

Edis, Arthur W., Westminster Hospital

First Class. Midwifery.

Stevenson, Thos., Scholarship and Gold Medal, Guy's Hospital

Hicks, John W., Gold Medal, St. Thomas's Hospital

Pye-Smith, Philip H., Guy's Hospital

Beddard, James, Guy's Hospital

Second Class.

Clarke, J. St. Thomas, Guy's Hospital

Harries, Gwynne H., King's College

Jones, John T., University College

Roberts, Frederick T., University College

Third Class.

Gwyther, James, Manchester Royal Infirmary

Rivington, Walter, London Hospital

First Class. Forensic Medicine.

Stevenson, Thos., Scholarship and Gold Medal, Guy's Hospital

Jones, John T., Gold Medal, University College

Clarke, Julius St. T., Guy's Hospital

Rivington, Walter, London Hospital

Roberts, Frederick T., University College } equal.

Second Class.

Beddard, James, Guy's Hospital } equal.

Pye-Smith, Philip H., Guy's Hospital } equal.

Gwyther, James, Manchester Royal Infirmary

Third Class.

Edis, Arthur W., Westminster Hospital } equal.

Hicks, John W., St. Thomas's Hospital } equal.

Axford, William H., King's College

M.D. Examination, 1863.

Hewlett, Richard W., King's College

Marriner, Charles H., University College

Money, Frederick J., St. Thomas's Hospital

Parson, Edward, King's College

Ringer, Sidney, University College

Tonge, Morris, King's College

Wookes, Edward, St. Thomas's Hospital

APOTHECARIES' HALL. On December 10th, the following Licentates were admitted:—

Fitzhenry, George, Brynmawr, Brecknockshire

Fox, Edward Lloyd Harries, University College Hospital

Hughes, David, Llanguollen

M'Kenzie, J. J.

Rooke, William Foster, Scarborough

At the same Court, the following passed the first examination:—

Beckett, Francis Mears, St. Bartholomew's Hospital

Buckle, William Turbeville, King's College

Smith, Henry Richard, Guy's Hospital

Passed as an assistant:—

Clarke, Walter, Hereford Place, Commercial Road

APPOINTMENTS.

*Brown, Frederick James, M.D., appointed Consulting Surgeon to St. Bartholomew's Hospital, Chatham.

RADCLIFFE, John N., Esq., elected Non-Resident Medical Officer to the National Hospital for the Paralyzed and Epileptic.

RICE, William, L.R.C.P.Ed., elected Assistant House-Surgeon to the Liverpool Southern Dispensary.

ROBERTSON, John, M.D., elected House-Surgeon to the Carlisle Dispensary.

POOR-LAW MEDICAL SERVICE.

ALLAN, William W., L.R.C.P.Edin., to District No. 1 of the Wharfedale Union, Yorkshire.

BRECKNELL, William H., M.D., to the Heworth District of the Gateshead Union.

GRAHAM, J., Esq., to the Burningham District of the Teesdale Union.

GRANOF, William S., Esq., to the Parish of Overmoigne, in the Weymouth Union.

HARDISTY, James J., L.R.C.P.Edin., to the Brookland District of the Romney Marsh Union.

JAMES, David, M.D., to the Parish of Dunbar.

OLIVE, Eustace H., Esq., to District No. 6 of the Brixworth Union, Northamptonshire.

O'NEILL, Timothy, M.D., to the Ballyduff Dispensary District of the Lismore Union, co. Waterford.

RADFORD, Thomas, Esq., to the Rishangles District of the Hartismere Union, Suffolk.

SALLERS, William, Esq., to the Pilkington Nos. 1 and 2 Districts of the Bury Union, Lancashire.

SKAFFE, Henry, Esq., to the Kilburn District of the Thirsk Union, Yorkshire.

STEELE, James, M.D., to the Parish of Cambusnethan, Lanarkshire.

WILLIAMS, Frederick, Esq., to the North Hill, or No. 2 Divided District of the Launceston Union.

ROYAL NAVY.

CUNNAN, Richard, Esq., Acting Assistant-Surg., to the *Salamander*.

NINNIS, Belgrave, Esq., Assistant-Surgeon, to the *Curagoa*.

RATTRAY, Alexander, M.D., to the *Salamander*.

VOLUNTEERS. (A.V.—Artillery Volunteers; R.V.—Rifle Volunteers):—

To be Honorary Assistant-Surgeon:—

HOUSEMAN, E. C., Esq., 17th West Riding R.V.

RIDDELL, R., Esq., 5th Berwickshire R.V.

DEATHS.

BRAITHWAITE, Francis, Esq., Surgeon, at Hereford, aged 59, on December 2.

GREEN, Joseph H., Esq., D.C.L., F.R.S., President of the Medical Council, at Hadley, aged 72, on December 13.

ROYAL INSTITUTION. Considerable sums have been paid to the Donation Fund for the Promotion of Experimental Researches.

BEQUEST. The late Mrs. A. E. Ward has bequeathed to the Sussex County Hospital, £500, and the London Hospital, £800.

MIDDLESEX HOSPITAL. Twenty-seven engravings have been presented to this hospital by Mr. Graves. They have been distributed throughout the surgical wards.

A FORTUNATE DOCTOR. Dr. C. A. Campbell of Ottawa, Canada, is said to be the heir to the Breadalbane Estates, worth about £40,000 *per annum*.

THE ACADEMY OF SCIENCES. Mr. Sylvester of Woolwich, the distinguished mathematician, has received the distinction of being elected corresponding member of the French Academy of Sciences.

SOCIETY OF ARTS. Dr. Cantor of the East India Company's service, left about two years ago all his property to be divided between the Society of Arts and the Wellington College. In consequence, the Society of Arts have arranged for the delivery of lectures, to be called "Cantor's Lectures."

ROYAL MEDICAL SOCIETY OF EDINBURGH. Drs. David J. Simpson, William Rutherford, Montgomerie Bell, and Thomas Annandale, have been elected annual presidents of this Society.

NEW ZEALAND BIRDS. During his travels, Dr. Hester has made a discovery of a character extremely interesting to ornithologists, viz., recent traces of the *notornis*, a smaller species of the *dinornis* (moa.) He expects that this is the bird which has given rise to the many rumours of the moa having been seen. He hopes to capture one of these birds.

THE BATH MUNICIPAL CORPORATION is represented at the present time, by no less than seven members of the medical profession, viz.: Drs. Barret, Falconer, Lloyd, Tunstall, and Messrs. Gore, Barter, and Cox. Within the short period of eight years, four medical men have been mayors of this city, viz.: Mr. William Bush, Dr. Falconer (two years in succession), Dr. Thomas Barrett, and Mr. Thomas Barter.

INDIAN MEDICAL STAFF CORPS. We understand that the Indian Government are about to establish a local Medical Staff Corps, upon somewhat the same principle as the General Staff Corps in that country; and that the service will be open to all assistant-surgeons in the British army who are willing to volunteer, and who can reckon five years from the date of being gazetted. The pay will be six hundred rupees a month, with twenty shillings a day retiring allowance after twenty-five years. (*United Service Gazette*.)

DR. HOFMANN. We learn that the chair of chemistry at Berlin, rendered vacant by the death of M. Mitscherlich, has been offered to Dr. Hofmann, the able chemist of London, who has thus the alternative of a choice between Bonn and Berlin, for the University of Bonn has already made him a similar offer, and has placed at his disposal a sum of £20,000 for the establishment of a laboratory. Dr. Hofmann has, moreover, recently been elected corresponding member of the Academy of Sciences of Vienna. M. Bunsen refused the chair at Berlin, as he would not leave the circle of friends which he possesses at Heidelberg.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH. At the annual election meeting held on Thursday, Dec. 3rd, 1863, the following office-bearers were elected for the ensuing year:—*President*—Dr. John G. M. Burt. *Council*—Dr. David Craigie; Dr. William Seller; Dr. John Moir; Dr. Robert B. Malcolm; Dr. Alexander Wood; Dr. William H. Lowe. *Vice-President*—Dr. David Craigie. *Examiners*—The President; Drs. Craigie, Seller, Wood, Douglas, R. Paterson, Wright, Keiller, Pattison, Cumming, Duncan, J. W. Begbie, Haldane, Sanders. *Treasurer*, Dr. Samuel Somerville. *Secretary*, Dr. Daniel R. Haldane. *Librarian*, Dr. J. Matthews Duncan. *Curator of Museum*, Dr. T. Stretchill Wright. *Clerk*, Mr. Christopher Douglas, W.S. *Auditor*, Mr. Kenneth Mackenzie, C.A. *Under Librarian*, Mr. John Small. *Officer*, Thomas Marshall.

SYMM v. FRASER AND ANDREWS. Had the verdict been for the plaintiff it would have been natural to look for a crop of actions of a similar kind, and medical men would have exercised their profession under a restraint most injurious to the sick and afflicted, and liable at any moment to be hauled before a judge for saving the life of a fellow creature. The medical profession guards jealously its honour, and, under the laws as they stand, there is a *maximum* of chances against any violation of the liberty of the subject from their conduct. It is as regards lunacy, or alleged lunacy, mainly, that the greatest watchfulness is demanded from the law; because an alleged lunatic has been taken away from friends and relatives, and literally placed in arrest. But in the case of patients suffering from transient delirium, the conse-

quence of disease, the treatment to which they are subject goes on in their own homes, and under the eyes of friends who are cognisant of and consenting parties to the restraint demanded for the safety of others as well as the patient. The law should and does guard with vigilance personal liberty, but at the same time it should and does guard also a profession whose members are bound sometimes to direct that the actions of a patient should be restrained. Dr. Fraser and Dr. Andrews have suffered a pecuniary loss by being put on their defence, quite as much in the interests of their profession, and in the interests, we may add, of the public, as in their own interests; and we trust the suggestion that their brethren should subscribe to pay the costs of this action will meet with a ready response. (*Globe*.)

DEATH OF JOSEPH HENRY GREEN, Esq., F.R.S. This estimable and learned member of the profession died at his residence, the Mount, Hadley, near Barnet, on the 13th inst. The deceased was an only child of wealthy parents, from whom he received a first-class elementary education. His mother—the sister of the celebrated Henry Cline, then the principal surgeon to St. Thomas's Hospital, accompanied her son to Berlin, where she remained during the whole of the time he was perfecting those studies which laid the foundation of his fame. He acquired his professional knowledge at St. Thomas's Hospital, under Mr. Cline, and was admitted a member of the Royal College of Surgeons on December 1st, 1815, having for two years previously acted as demonstrator. In 1818, he joined Mr. afterwards Sir Astley Cooper, as joint lecturer on anatomy and physiology. In 1820, he succeeded the younger Cline as surgeon to St. Thomas's Hospital, and with Sir Astley Cooper then delivered lectures on surgery and pathology. Lithotomy, having in 1827 operated in forty cases, and lost only one patient; this success is unequalled. In 1830 he was appointed to the professorship of surgery in King's College, of which institution he was at the time of his death a member of council. In 1831 he wrote a pamphlet, called *Distinction without Separation*, addressed to the President of the Royal College of Surgeons, to prove that the distinction between physician and surgeon did not really exist, and that such division was highly injurious where it did. In 1834 he wrote a memorable letter to *The Times*, suggesting a plan of medical reform, to the effect that the medical student should have a sound, classical, and mathematical education, and proposing a higher and a lower grade or distinction. In 1835, on the death of Mr. Lynn, Mr. Green was unanimously elected to the chair in the councils of the college. In 1840 he delivered the annual oration in memory of Hunter, afterwards published under the title of *Vital Dynamics*; and again in 1847, he became Hunterian orator, and published the lectures under the name of *Mental Dynamics*. Neither were considered popular discourses; they were full of the metaphysical notions entertained by the celebrated Coleridge, his intimate friend. In 1846, on the resignation of Sir Benjamin Brodie, he was elected a member of the Court of Examiners, and in 1849 obtained the President's gown—an honour again conferred on him in 1858. From Her Majesty's Government he received the appointment of President of the Council of Medical Education and Registration of the United Kingdom, on the resignation of Sir B. Brodie. The death of Mr. Green, though at last sudden, was not altogether unexpected; he had been labouring for some months under a severe attack of gout, complicated with disease of the heart. He had so far recovered as to be able to visit his sitting room, when on Sunday last he was suddenly seized with his fatal illness, which carried him off in his seventy-second year. He leaves a widow and a large circle of friends to deplore his loss.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY.....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY....St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY......Westminster Ophthalmic, 1.30 P.M.
SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY. Medical Society of London, 8.30 P.M.
TUESDAY. Royal Medical and Chirurgical Society, 8 P.M.

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

JOURNALS WANTED.—Wanted, to complete sets of the BRITISH MEDICAL JOURNAL, a few copies of the volumes from July to December 1861, January to June 1862, and July to December 1862; also of the number for January 3rd of the present year. Gentlemen who have these copies, and do not further require them, will greatly oblige by forwarding them to the publisher, Mr. Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

WE are glad to hear that St. Bartholomew's Hospital has, for some years past, had a chloroformist on the regular staff of the hospital, and that his services are remunerated by a suitable salary. The office has been held by Dr. Black, Dr. Martin, and at present, we believe, by Dr. Andrew.

T. B. T.—The book is published by Longman and Co., Paternoster Row, London; and by Webb and Hunt, Liverpool.

Our readers will see by the following advertisement, which is cut from a prominent position in the *Times*, that Messrs. Savory and Moore possess a specific for asthma.

"*Asthma Specific.*—*Datura Tatula.*—By immediate contact with the air-cells and passages, the fumes of this plant afford instantaneous relief. The remedy is adapted for use by all patients. Introduced into this country and prepared only by Savory and Moore, chemists to Her Majesty and H.R.H. the Prince of Wales."

Such is the "last new thing" in asthma! We recommend Messrs. Savory to head their next advertisement with "Physicians Superseded." "Every Man His Own Doctor." What use is there in asthmatics applying to doctors, when Messrs. Savory and Moore can do the needful for them without a fee?

GRATUITOUS SERVICES AND THEIR REWARD.—M.D. says: "Allow me to call your attention to the enclosed letter, taken from one of our local newspapers. It is a good specimen of the modern notion as to one of the uses to which hospitals should be applied; viz., to rob the medical man of his hard-earned dues. How is the public to be disabused of this most uncharitable notion?"

"*Addenbrooke's Hospital.* Sir,—Allow me, as one feeling deeply interested in the prosperity of the above institution, to make one or two suggestions for consideration in the contemplated alterations. Seeing by the reports that it is said, and no doubt correctly, that many persons are admitted, which, some think, ought not to be from their circumstances in life, would it not be desirable to arrange in the new building a few comfortable rooms for the admission of patients, who, upon paying a weekly sum, might have the opportunity of enjoying the advantage of the best of skill, with all the necessary appliances and comforts of a home, thereby making the same provision for persons afflicted in body, as is made by our lunatic asylum for affliction of mind? And also appointing collectors and canvassers for the institution, as I well know many persons, if applied to, would gladly contribute to the funds.

"Cambridge, November 25th, 1863."

COMMUNICATIONS have been received from:—Mr. OLIVER PEMBERTON; Mr. R. M. CRAVEN; Mr. LOWNDES; Dr. FRIDERICK J. BROWN; Mr. T. M. STONE; Dr. S. MONCKTON; Mr. WILLIAM COPEY; Dr. HENRY MARSHALL; Dr. FLEMING; Dr. HUMPHRY SANDWITH; Dr. BURROWS; Dr. ROUTH; Dr. WILSON; Dr. FORBES WINSLOW; Mr. BOWLES; Mr. T. B. THWAITES; Mr. HAYNES WALTON; Mr. W. BOWMAN; Mr. T. S. FLETCHER; THE SECRETARY OF THE PHARMACEUTICAL SOCIETY; and A POOR CLUB-DOCTOR.

NOTICE.—The first number of a New Series of the MEDICAL CIRCULAR (Vol. 24th) will be sent on Wednesday, January 6th, 1864, to every Member of the Profession whose name appears in the Medical Directories for England, Scotland, and Ireland. The intention of this large issue of the Journal is to draw attention to its many improvements, in size, in paper, and in the arrangement of its contents, which, under new Editorial management, will be of a more practical character, and better adapted to the requirements of the busy practitioner than heretofore.

Advertisements on this occasion cannot be received later than Saturday January 2nd.

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See also *Times*, June 11, 1862; *Daily News*, May 29, 1862; *Standard*, June 2, 1862; and others of the Daily and Weekly Press.

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Addresses and Papers

READ AT

THE THIRTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[Held in BRISTOL, AUGUST 5th, 6th, and 7th, 1863.]

VACCINATION, AND THE BEST MEANS OF EXTENDING IT.

By T. S. FLETCHER, Esq., Bromsgrove.

THE subject of vaccination must ever be one of great importance; for, if vaccination could be universally adopted, we should have no small-pox; and in proportion as it is neglected, so will small-pox prevail to a lesser or greater degree. I bring the subject before you at this time, because various circumstances have occurred which render it evident that Government must do something to extend vaccination; and it is generally understood that Government will introduce a bill for this purpose in the next session of Parliament; and I think this Association may now, as it did on a former occasion, offer some useful suggestions.

The vaccine disease is not met with amongst oxen or grazing cattle; in our dairy-cows, it is found in those parts handled by persons milking; and as small-pox has become so much less common than before the days of Jenner, so we now seldom or never meet with cow-pox in the cow. We therefore have strong presumptive evidence that cow-pox is a disease accidentally or designedly produced in the cow by the inoculation of human small-pox. Mr. Coely of Aylesbury has not left his a presumptive or doubtful question; for he, by inoculating a cow with small-pox matter, procured cow-pox. The small-pox, in passing through the cow, lost all its virulent and infectious properties, but retained the power of communication by contagion, and of protecting persons from small-pox, in the same manner as small-pox itself would have done.

When persons are inoculated for small-pox, the specific poison enters into the constitution and produces an eruption on the skin, and (as a general rule) renders them proof against a second attack; and exactly in the same manner, cow-pox enters into the constitution, produces an eruption at the places vaccinated, and protects the individual. The protection afforded by small-pox is not in proportion to the eruption; and, where many or all the pocks have been destroyed, the protection has remained the same. It must therefore be very doubtful if the eruption be essential to protection. As regards cow-pox, certain experiments have been made, by removing the pustules as soon as the red specks appeared; yet the persons in whom the pustules were thus treated resisted small-pox inoculation, and were evidently as equally protected as others, in whom the pustules had run the usual course. May we not define cow-pox to be a harmless, contagious variety of small-pox; and conclude that the peculiar principle (be that what it may) which gives protection in cow-pox, is the same as that possessed by small-pox?

On Dr. Jenner's examining the first case he vaccinated, he says—"The appearance was new to me; and I ever shall recollect the pleasing sensation it excited, as from the similarity to the pustule produced by variolous inoculation, it incontestably pointed out the close connection between the two diseases, and almost anticipated my future experiments." Elsewhere he speaks of cow-pox as being the same disease as small-pox in another form; and in his last treatise he says—"My opinion is, that the small-pox and cow-pox are the same disease under different modifications."

Mr. Marson contends that "cow-pox is not a disease natural to man, and incapable of communication by infection, therefore differing from small-pox, small-pox being unchangeable, it being now what it ever has been and ever will be."

Various experiments have been made to communicate small-pox to cows by infection, but without success. It therefore is with cows, like cow-pox, not an infectious, but a contagious disease; and cow-pox, like hydrophobia and glanders, is not an infectious but a contagious disease, and like them not a disease natural to man. Yet why, on these accounts, should we suppose there can be any liability to change, or require a greater amount of the specific animal poison (than the minute quantity necessary to affect the constitution) in cow-pox, than in hydrophobia, glanders, or small-pox? Are we to suppose that, if hydrophobia (which is not an infectious disease, or natural to man) had been transmitted, like cow-pox, from man to man, for sixty years, its specific properties would have undergone, or be liable to, any change? Certainly not.

Cow-pox, like hydrophobia, is unchangeable; yet some persons say it has, by time, become deteriorated, and bring forward tables to prove the fact. But the following simple experiment shows the fallacy of supposing any such change could take place. Vaccinate a child in two places, the one with matter fresh from the cow, and the other with old human lymph. The pocks will be similar, and there cannot possibly be any difference, in their protective powers.

The opinion of the National Vaccine Institution is: Lymph does not lose any of its prophylactic power by continued transit through the human body.

Another, and a highly important question is, Can we have different degrees of quality of lymph? As we have only one quality of small-pox, so I believe we can have only one quality of cow-pox. But some persons, of the highest authority, say—"the like will produce the like;" and if you have no regard to this rule, and take lymph from small inferior pocks, you will produce the same degenerated kind. On the other hand, by selecting lymph from the best pustules, you may improve the quality to the highest degree.

Thus, we are told, on the day of the marriage of the Prince of Wales, no children were present at the Surrey Chapel Vaccination Station; and the following week there was consequently no means of carrying out the usual arm-to-arm vaccination, and Mr. Marson was thus driven to use preserved lymph to vaccinate twenty-two children on that day. The effect was, the lymph for some time afterwards, although it took effect, did not produce such fair vesicles as before the interruption; but by selecting the best arm of the day to vaccinate from, Mr. Marson has now worked it back again to as good a state as before. Not only does this case of Mr. Marson's prove to us that he believes there are different qualities of lymph, affording different degrees of protection, but that arm-to-arm vaccination affords the best quality of lymph and the highest degree of protection; while dry lymph, on ivory points, produces an inferior lymph, and a less degree of protection.

Let us seriously consider if there possibly can be any difference in quality. Cow-pox, like small-pox, when introduced into the system, will, by multiplying itself, affect the whole body and protect it from a future attack; and no difference can possibly arise, whether the poison were from a small or large pustule, or fluid or dry lymph. It is unchangeable, and incapable of producing any other than one, its own specific effect. Those who believe in these different degrees of quality of cow-pox, say that the most inferior degree affords a perfect protection from death by small-pox till after puberty! Then, is it not natural to suppose that, when small-pox does happen after that period, it arises from the peculiar constitution of the person having regained the same state it formerly

possessed before vaccination, and not from any degree in the quality of the lymph employed? If a person have inoculated small-pox, the having a second attack does not depend upon any degree in the quality of the small-pox used in the inoculation, but upon his constitution; and so with vaccination.

Another question is, regarding quantity, or, as it is called, "a high insertion success," numerically speaking.

Mr. Marson, in a petition to the House of Commons, says, the mortality among the vaccinated attacked by small-pox is seven per cent. taken generally. But among what he characterised as badly vaccinated it is fifteen per cent.; among those, on the other hand, who may be considered to have been well vaccinated, that is to say, who have four or more good vaccine cicatrices, the mortality is less than one per cent. Thus, says he, the necessity of carefully conducted vaccination is rendered strikingly manifest by the mortality of fifteen per cent. in the badly vaccinated, and only three-fourths of one per cent. in the well vaccinated, when attacked by small-pox.

"It is," says Buchanan, "a matter of exceeding importance that the vaccination should be performed in such a manner as to insure a high insertion success, numerically speaking. For if a child have been vaccinated, if the vaccination have taken at all, the operation is at an end; and the individual remains afterwards with the degree of protection afforded by the first vaccination, whatever that may be. A child in whom, for instance, the arm has taken, in one place, remains protected only to that extent; and it is not possible subsequently to confer a greater degree of protection by a better vaccination." Dr. Stevens, a Government Vaccination Inspector, strongly recommends three punctures in each arm. So strong a believer is Dr. Hewitt in the "numerical-insertion-success" system, that he recommends a series of four very minute punctures to be made very close together, so close as to leave an almost imperceptible space between them; and it is intended to produce one pustule only by the four punctures. Five or six sets of punctures should be made, so as to produce five or six scars, the object in making the four minute punctures being to insure the introduction of the lymph, and to increase the "insertion success."

Here we have Mr. Marson advancing a theory that protection depends upon the quantity of vaccination employed, and a Government Vaccination Inspector lamenting that greater protection cannot be given to a child with a single vaccine pustule; "for," says he, "it remains protected only to that extent." Evidently believing had it had four pustules, its protection would have been fourfold greater than with one. And we have a lecturer in one of the first London schools recommending twenty to four-and-twenty punctures to insure the introduction of the lymph, and to increase the quantity, or, as he calls it, "the insertion success," numerically speaking. It is true, he says, make the punctures small; but what does it matter if the punctures are large or small, so that the lymph is introduced; for, let it be ever so minute or extensive, it will, as I said before, by multiplying itself, affect and protect the whole body. And, if it be thus protected up to puberty, the failure of protection afterwards does not depend upon the quantity of lymph introduced, or the number of punctures made, but upon the constitution of the person vaccinated.

The facts related by Mr. Marson are the result of nearly 6,000 cases, carefully recorded, at the London Small-Pox Hospital. They therefore demand our most serious attention; for if all other cases are like these 6,000, then it is manifest that, by adopting his recommendation to vaccinate so as to insure at least four good cicatrices, we render protection to life from small-pox, as he says, almost perfect. Whereas, on the other hand, if his views be correct, and we remain satisfied with vaccination producing one bad cicatrix, nearly fifteen in every hundred of those thus vaccinated, who may happen to

have the small-pox, will be victims to our carelessness or our opinions.

I wish, therefore, my views should be received with the greatest caution. But what says Dr. Jenner? He makes a marked difference between the local effect and the effect on the constitution. He says: "It is singular that, in most cases of secondary small-pox, the disease in the first instance has been confluent, so that the extent of the ulceration on the skin (as in cow-pox) is not the process in nature which affords security to the constitution." And, again, he says: "As cases of vaccination multiply, I am more and more convinced of the extreme mildness of the symptoms, arising merely from a primary action of vaccination on the constitution; and those symptoms which, as in accidental cow-pox, affect the patient with severity, are entirely secondary, excited by the irritating process of inflammation and ulceration. A single cow-pox pustule is all that is necessary to render small-pox ineffectual."

Mr. Marson's views are therefore contrary to the preconceived opinions of scientific men, who believed one vaccine vesicle was as good as a thousand. And we must bear in mind the percentage he gives is not that on persons vaccinated, but on those who, after vaccination, have the small-pox; and that his tables are not corroborated by those of others. There, therefore, may perhaps be something in the locality affecting other circumstances besides the death-rate he gives, which is most disproportionate when compared with other tables. The average number of deaths after vaccination, taken generally, is according to Mr. Marson 7 per cent., or 1 in 14, within a fraction; whereas Mr. Thomson of Edinburgh only lost 3 in 1,500 cases, or 1 in 500. The one losing 1 in 14, the other 1 in 500, the difference is as 1 is to 35. And perhaps this may explain why, when our country schools are inspected, on Mr. Marson's theory, only ten per cent. of those vaccinated are supposed to be protected from small-pox, which never was, and I hope never will really be the case.

Neither are Mr. Marson's tables borne out by the finest possible test; namely, re-vaccination. For the re-vaccination of nearly 14,000 soldiers in the Würtemberg army shows that insusceptibility to cow-pox evidently does not depend upon any original ineffectiveness in the former vaccination; and the experience of other countries confirms the general accuracy of the Würtemberg tables. Surely, then, Mr. Marson's theory requires other practical corroboration than that of London, before Government Inspectors should report that only ten per cent. of those in our schools who are vaccinated are safe; and carry out these views by obtaining the dismissal of private practitioners as public vaccinators, to insure a better kind of vaccination by appointing union surgeons the only public vaccinators.

Vaccination of the Würtemberg Army.

13,681 of the 14,384 Military Vaccinations of the above army, being classified according to the marks of previous vaccination or small pox, the results were as under.

Degree of success of Re-vaccination.	Of cases with normal cicatrices of vaccination there were 75,46, and among these the results per 1000 were—	Of cases with defective cicatrices of vaccination there were 35,45, and among these the results per 1000 were—	Of cases with no cicatrices of vaccination or small-pox there were 10,000, and among these the results per 1000 were—	Of cases bearing marks of previous small-pox there were 296, and among these the results per 1000 were—
Perfect	3104	2807	3376	3195
Modified	2405	250	1011	2151
None	4092	4004	4710	4020

Those who believe in Mr. Marson's theory, insist

most strongly upon vaccination being performed on a large scale by a limited number of public vaccinators at public vaccination stations. And, where the smallness of the population requires it, to have these vaccinations performed, periodically or otherwise, at times of longer or of shorter duration.

This plan is only increasing the worst evils of the arrangements under the present Act, and cannot fail to retard vaccination. You may (as proposed) employ individuals to send persons to these vaccination stations, and, if they do not comply, you may fine them, and, as also proposed, placard them, as railway officials do those infringing their Act. But it will do no good. It will fan what is now only carelessness respecting vaccination into a bitter hatred against the law and vaccination itself. Let us do as we would be done by! Would we like to have our children—would the rich like to have their children—vaccinated at public vaccination stations? Certainly not! Then why expect the poor? The measure has been tried for twenty-three years, and found most singularly to fail; then, why try, not only to continue, but to increase the evil? Lord Lyttelton, who introduced the Compulsory Vaccination Act, never intended that public vaccination should be limited to union surgeons, but that any surgeon who chose should be appointed. He is chairman of the Board of Guardians to which I am surgeon; and no sooner did his Act come into operation, than, on his lordship's suggestion, all the medical men in the Union were appointed public vaccinators: and the following table clearly shows the formation of the Union into districts; and the confining the gratuitous vaccination in some of these districts to one vaccinator has been a great hindrance to vaccination.

Bromsgrove Union.

No. of District.	Vaccinators.	Percentage Vaccinated.
1	5	100
2	3	79
3	1	26
4	1	22
5	1	16

The machinery of the Vaccination Act being so much connected with the working of the Poor-Law Act, the formation of districts, the appointment of public vaccinators, and vaccination stations, and the interference of the law with the vaccination itself, are, I am sure, serious impediments to vaccination. I want to see the plan carried out recommended by the Epidemiological Society. They say: "It is not desirable any public arrangements should put any obstacle in the way of the employment of medical men willing to undertake this great public duty; on the contrary, there is no way by which the people will be more surely attracted to vaccination than by their being able to select the practitioner by whom they wish it performed."

I would, therefore, propose that the law should insist upon all children being vaccinated before they are three months old (when, where, and by whom the parents please), so that the vaccination is certified by a medical man, and the certificate registered at the office of the registrar of the district in which the child was born; and no child to be considered as vaccinated until the vaccination is registered. Having done this, the law must (as it now does, but in a very different manner to the present) provide gratuitous vaccination for those who cannot or will not pay for it. To do this, the registrar should, when registering a birth, issue a form (Schedule A), to be filled up and returned to him. Those certifying gratuitous vaccination, the registrar should, at the end of the quarter, present for payment of one uniform fee, to come from the same source whence he receives his fees for registering births; these fees should then be paid to the medical man who certified to the gratuitous vaccination. If out of the registrar's district, by a post-office order, unless otherwise arranged. I would not interfere with, but

increase the powers of the Board of Health as regards government vaccinators and vaccination stations for the supply of lymph; and have also county vaccination inspectors, and a central vaccination board. The above plan is simple, effective, prevents fraud, treats all alike, and if adopted, would, I think, meet with the hearty co-operation of the public and the profession.

The importance of a systematic re-vaccination is now unquestionable. I would therefore propose that one successful re-vaccination should be gratuitously paid for, in somewhat the same manner as the first, providing it is after the child is ten years of age; seven is early, but they will not be so likely to have left home. Wherever small-pox may be prevalent, gratuitous re-vaccination should be most liberally performed.

I could have wished to have said something on the necessity of great attention in procuring lymph, on inspecting the pustule after it is formed, on the supposed power of vaccination in transmitting diseases, and of the question of the influence of disease on vaccination; but I have said much more than I at first intended; and my chief object has been to recommend a safe and popular measure as the best means of extending vaccination.

SCHEDULE A.—A Notice Paper for Vaccination.

No. in the
Vaccination Register.

To all to whom it may concern, especially to the parents or person having the care of or custody of
, the child of , of

I give you notice and require you to have the above child vaccinated before it is three months old, and to take it on the eighth day after for inspection; and I further give you notice that the child is not in law considered vaccinated till the underneath Vaccination Certificate is properly filled up, and registered at my office. Should you neglect doing so, you will be liable to a fine not exceeding 20s.; and, if not paid, to an imprisonment for a period not exceeding seven days. And should you afterwards continue to neglect, you will be liable to the same proceedings.

Dated this day of , 186 .
Name.
Registrar of.

Certificate of Vaccination.

The above child was* on the day of 186 ; and it was inspected by me on the day of , 186 ; and the vaccination has taken successful effect.

+
Name.
Title.
Address.

* Here state if "vaccinated" or "gratuitously vaccinated".
+ If inspected by a qualified pupil, insert name, and for whom.

The filling up the following is optional, excepting in cases of gratuitous vaccination.

The above child was vaccinated from , child of , of , by fluid dry lymph; and punctures on the left and punctures on the right arm have taken effect.
Signed.

Request.

The above child has been gratuitously vaccinated at my request.
Name.
Address.

Claim of Exemption.

I claim an exemption from having the vaccination of the above child registered, for the undermentioned reasons.

Dated this day of , 186 .
Signed.
Residence.

No. in this and Register of Birth.	Christian and Surname.	Residence.	Date of Birth.	Date of registration of vaccination, permanent exemption, or death.	Name of person signing certificate, and of vaccination gratuitously performed. Yes or no.	Date of registration of temporary exemption.	Date of re-vaccination, if gratuitously performed. Yes or No; and by whom.

August 20th. He was much improved. The restlessness had disappeared. The fits were gradually decreasing in number and severity. He had regained the entire use and sensation in his arm and leg.

September 4th. All that remained now was slight occasional twitchings of the left side of the face. He was much stronger, and went out daily. He was ordered to take small doses of sulphate of zinc and extract of henbane three times a day.

October 20th. He had now lost all traces of the twitchings, excepting very occasionally, and then only very slight. He has perfect use of his arm and leg.

October 27th. He returned to his situation, as he said, "as well as ever he was".

PATHOLOGICAL AND PRACTICAL RESEARCHES ON THE VARIOUS FORMS OF PARALYSIS.

By EDWARD MERYON, M.D., F.R.C.P.

[Continued from page 431.]

PARALYSIS FROM DISLOCATIONS AND FRACTURES OF THE VERTEBRÆ.

THE functional disturbance of the spinal cord which attends almost all cases of dislocations and fractures of the vertebræ imparts an interest to such particular injuries, which the same accidents to other bones do not possess.

The shortness of the vertebræ, the intricate manner in which they are interlocked, the large surfaces by which their bodies are connected, and the small amount of motion admitted between any two of them, render it almost impossible that either dislocation or fracture can occur without considerable violence and mischief being done to the spinal marrow; and yet we do occasionally hear of fractured spines without paralysis, but they are exceptional cases.

Paralysis of every part of the body which is supplied with nerves proceeding from the spine below the seat of injury is the all-important symptom, and in almost every case it will be found that retention of urine and difficult defecation exist also. The former of these symptoms, however, is not dependent on a palsied state of the muscular fibres which surround the bladder, for that organ empties itself perfectly when a catheter is introduced. The detrusor urinæ is a voluntary muscle, and its loss of power would in some degree account for the difficult micturition; and it is chiefly to the loss of voluntary relaxation of muscles which surround the urethra and the rectum to which the symptoms in question are due. Like all other voluntary muscles of the body, they are under the influence of the spinal cord, and, as we have seen in most of the cases thus far recorded, retention of the excretions results from a severe injury or division of the cord. Incontinence is a common symptom when disease of the cord comes on gradually. It implies either irritation of the cord or of the bladder, in which latter case it is simply a reflex action, and as such, appears when the sphincter muscles of the bladder and rectum have lost their contractility shortly before death takes place.

Two instances of dislocation are contained in the *Leçons Orales* of Baron Dupuytren (*On the Injuries and Diseases of Bones*. Translated and edited by F. Le Gros Clark. Sydenham Society.) These typify all dislocations at the lower part of the cervical region, and tend to illustrate the fact, as stated by that illustrious surgeon, that the cause of death is, apparently, "the upward extension of disorganisation of the spinal cord, so that the origin of the phrenic nerves is ultimately involved, and death takes place from asphyxia."

MM. Hamon and Mercier have related two cases of fractured sacrum, in each of which, together with partial paralysis of the lower extremities, there was retention of urine and feces. So also in a patient of Dupuytren's, who threw himself from a third story window. "There was deformity and abnormal mobility near the lumbar region. The paralysis did not at first extend above the lower parts of the thighs, but the bladder and rectum were included. There was a temporary improvement, but soon the paralytic condition involved the whole of the lower limbs; an extensive slough formed on the sacrum, and the patient sank, preserving his intellectual faculties to the last. The spinal cord was found more voluminous than natural, especially at its lower part. Opposite the tenth dorsal vertebra was a cyst filled with pus, and formed in part by the medullary substance reduced to a fluid consistence; the body of the second lumbar vertebra was fractured" (*Ibid.*, p. 365.)

The subject of the following case, also described by Dupuytren (*Ibid.*, p. 358-9), gives us some idea of the time required for the restoration of nerve-fibre after it has suffered solution of continuity.

CASE. "Charles Millié, aged 21, carman, was admitted into the Hôtel Dieu in 1825, with paralysis of the bladder and extremities, caused by a fall on the neck. The paralytic condition was more marked on the left side than on the right, and in the lower than in the upper extremities. After two months and a half of entire rest, combined with blood-letting from the arm, as well as by cupping and leeches, he was convalescent, and quitted the hospital with only slight weakness in the left leg, and the head a little bowed forwards.

"In spite of injunctions to be very cautious in taking exercise, he undertook a long walk, and whilst out was attacked with paralysis; he fell down, and remained in the open air all night. When conveyed to the Hôtel Dieu on the following day, the paralytic condition was much more complete than on the former occasion, involving the lower extremities, which were entirely powerless and insensible, and also the arms from the shoulders to the hands. At the lower part of the neck there existed a pain which extended to the left shoulder; neither bladder nor rectum acted.

"The patient was bled twice and the catheter passed. Some days afterwards, he was affected with spasmodic contractions of the limbs and bladder, and the catheter was no longer required. A moxa was applied between the shoulders, but without benefit; the skin over the sacrum and trochanters began to slough, diarrhœa set in, and the patient sank exhausted thirty-four days after the fall.

"On examining the spine, a fracture through the lower part of the body of the fourth cervical vertebra was found; it extended obliquely downwards and forwards, but the parts were prevented from being displaced by the articular processes. The left transverse and articular processes of the fifth vertebra were fractured, so as to permit the fourth to slip forward and compress the cord at this point. The intervening fibro-cartilage between the fourth and fifth vertebræ had disappeared; and along the line of fracture in front of their bodies was an osseous deposit, resembling callus; which itself presented a fissure, as if consolidation had taken place, but the parts had again yielded to violence.

"Opposite the point of compression the cord exhibited an annular constriction, abrupt and well marked, and very analogous to that presented by the intestine in some cases of strangulated hernia. When incised longitudinally at this spot, the colour and consistence of the cord were found altered to a brownish hue, and the density and firmness of fibrous tissue; a small circumscribed spot, about a line in extent, was especially characterised in this way. The membranes were also more adherent here than elsewhere. It was inferred that the seat of this peculiar change was that of the original

lesion, and that the above appearance constituted a true cicatrix of the spinal marrow."

In another instance, the details of which are contained in the *Rapport de la Société de Chirurgie (L'Union Médicale, 1860, p. 525)*, about the same period of time was required for restoring the integrity of the spinal cord after an incised wound.

CASE XXV. A boy, aged 15, received a wound from a cutting instrument in the back, which penetrated between the tenth and eleventh dorsal vertebrae, and probably divided the right half of the spinal marrow. There was complete paralysis of motion, and incomplete loss of sensibility of the right thigh and leg. The patient made a good recovery, and, at the end of two months, was able to walk four or five miles. A remarkable symptom in this case, which has been often noticed before, was the quantity of cerebro-spinal fluid which escaped from the wound during the first twelve days after the receipt of the injury.

A somewhat similar, though less successful case is reported by Herr Schwanderer, in which a punctured wound was inflicted in the spinal marrow between the second and third dorsal vertebrae. There was paralysis of the right foot and leg, shortness of breathing, and involuntary discharges of feces and urine. The foot remained partially paralysed.

The next case which fell under the observation of Mr. Belcher of Burton-on-Trent, is interesting, not only as illustrative of fractured spine generally, but as an example of reflex action induced by the first shock given to the spinal marrow. The details are contained in the *BRITISH MEDICAL JOURNAL* for November 22nd, 1862, pp. 581-2.

In all these accidents there is so definite a correspondence between the extent of paralysis and the seat of the injury that the diagnosis is seldom difficult; and with the additional evidence afforded by the deformity, the abnormal mobility, the crepitus, and the absence of cerebral symptoms, the nature and measure of the mischief may be determined with tolerable certainty. It should be remembered, however, that concussion of the spine, without either dislocation or fracture, has been known to produce paralysis; and Dupuytren has ascribed some cases of diseased cervical ligaments which have led able practitioners into error (*Op. cit.*, pp. 346-9).

But when either dislocation or fracture of the first or second cervical vertebra involves the phrenic nerve in the lesion which destroys the function of the other nerves which associate the muscles of the chest in the act of respiration, there is no time given for diagnosis. In the cases just described, a patient may drag on a painful existence for a time, but when such an injury is inflicted on the cord at the base of the medulla oblongata death is the immediate result—another breath is not drawn. Two instances of this are recorded by Sir Charles Bell ("On the Nerves which Associate the Muscles of the Chest in the actions of Breathing, Speaking, and Expression." *Philosophical Transactions*, 1822, p. 302).

In both cases, the injury of the medulla oblongata arrested the act of respiration on the instant of its occurrence. Not only is the attempt to reduce either dislocation or fracture inexpedient, but it is positively dangerous; for the force required to effect the desired object would necessarily implicate the spinal cord in the extension, and intensify the mischief which compression may have set up. Therefore, with whatever reluctance we may feel, yet must we regard these injuries as incurable and mortal.

If, however, as sometimes happens from gun-shot wounds, the spinous process only of a vertebra be fractured the mischief is not very serious. I remember to have seen a case in which the spinous process and the posterior portion of the arch of one of the lower cervical vertebrae was shot away so that the theca of the cord

was exposed. The subject of the accident was an officer, who received the wound in the Crimean war. When he arrived in England the external wound had healed, but pressure over the part produced numbness and a sense of heaviness of the arms. By wearing a metallic shield over the part he suffered no great inconvenience.

Perfect quiet on the back is the best remedy in all fractures and dislocations of the vertebral column; but great care is necessary to protect the paralysed and insensible surface from bed-sores. Active treatment may be necessary to subdue local inflammation; and if much flatulent distension of the abdomen exist, a warm purgative enema may be given. If requisite, the urine must be drawn off by a catheter. In cases of diseased ligaments of the spine issues are of great service.

It will be observed that, I have endeavoured to illustrate the relationship between the symptoms of disease and the anatomical structure of the parts on which those symptoms depend. This course, I venture to think, is more useful than the search after rare and exceptional cases in which, supposing the *post mortem* examinations to have been perfectly conducted, we are compelled to admit the marvellous and inexplicable nature of the disease.

The most extraordinary that I remember to have read of is contained in the *Journal de Chirurgie* (tome iv, p. 137, 1792). The subject, J. P. Ripert, aged 21, was admitted into the Hôtel Dieu on August 10th, 1792, in consequence of a gun-shot wound just below the inferior angle of the scapula, and which had occasioned effusion into both sides of the thorax. He survived the wound twenty-six hours, during which no other symptoms than those of effusion manifested themselves. He voided his urine freely, had no paralysis of the inferior extremities, but, on the contrary, continued to move them in an agitated manner until he died.

On tracing the course of the ball after death, it was seen to have penetrated the chest between the eighth and ninth rib, to have traversed the inferior lobe of the right lung, thence through the right side of the body of the tenth dorsal vertebra into the vertebral canal where it had entirely divided the spinal marrow. From the spinal canal it passed into the left cavity of the thorax, which, like the right, was found full of blood, and carried out with it a portion of the inferior lobe of the left lung between the seventh and eighth ribs, near their angles.

Two cases are reported in the *Archives Générales de Médecine* (Mémoire sur quelques alterations de la Moelle Epinière dont les observations principales ont été recueillies à la Clinique et sous les yeux de M. le Professeur Bougon, tome vii, p. 329). The subject of one was a soldier, who had received a sword thrust through the posterior part of the twelfth dorsal vertebra, between the spinous and oblique processes. The wound passed through the spinal cord, the point of the sword extending to the right side of the eleventh dorsal vertebra, whence it was extracted after death. Yet the man marched eighty leagues after the infliction of the wound; and Velpeau vouches for the accuracy of the details of the case.

The other was a tailor, aged 17, who had diseased vertebrae and spinal curvature, together with a fistulous abscess in the left thigh. He died without any paralysis, yet were there two vertebrae and the lower half of the lumbar swelling of the cord absolutely destroyed.

The case reported by my late friend, Mr. Stanley, to the Royal Medical and Surgical Society, is so generally known that I ought, perhaps, to apologise for quoting it. The disease was not the result of an accident, but came on spontaneously and increased progressively. Loss of motion became complete throughout the whole extent of each lower extremity, but in no part was there defect of sensibility; scratching, pricking, or pinching being attended by sensations as acute as ever.

On examining the body, no disease was found in the anterior columns of the cord, but the whole of the posterior from the pons to the lower end of the cord were changed in colour and consistence. (*London Medical Gazette*, February 7th, 1840.)

An exactly similar case has been reported by Dr. Budd. Considering the marvellous uniformity which exists in the anatomical structure of every organ, and the special function of each individual tissue; considering, too, the unvaried results of experiments when performed on the same parts of the nervous system, in the same manner, and under precisely the same conditions, in the lower animals, I am more disposed to believe in the incomplete examination of pathologists than in any freaks of nature. How seldom, for instance, is the grey substance of the cord adequately examined during a *post mortem* investigation; and yet there it is—if the starting point of every nervous fibre contained in the anterior roots of nerves mean anything—that we should look for an efficient cause, for there it is that every muscular motion must originate. Then, again, to what false conclusions may the varying conditions of the spinal marrow lead us when it is examined after death! It has been already observed that, no part of the animal body undergoes such rapid changes as does the nervous system when its vital action has once ceased; and yet how prone are we to infer that as we find it, such was its state at the last moment of life; and, thereupon to dilate on the discordance between its physiological action and its morbid condition.

Lateral Curvature of the Spine produced by Paralysis of the Muscles of Respiration. Before I leave this part of my subject, a few observations on the ingenious theory of Dr. Stromeyer (*Ueber Paralyse der Inspirations-Muskeln*. Hannover, 1836), which attributes to partial paralysis of the muscles of respiration the ordinary form of scoliosis, may not be considered out of place.

The dependence of the muscular tissue for its healthy contractile power upon a constant and adequate supply of arterial blood is too universally admitted to require being insisted on here. On this axiom, Dr. Stromeyer conceived a doctrine which is worthy of our best consideration, seeing that it may suggest means both of prevention and cure, available for the purposes of everyday practice.

The accessory muscles of respiration possess two distinct functions, the one appertaining to voluntary motion, the other to respiration; and these functions are dependent on two distinct sets of nerves.

The *sterno-cleido-mastoideus* and *trapezius* muscles have nerves going to them from the cervical plexus for the purpose of moving the head and shoulders, whilst they also receive a special nervous influence from the spinal accessory nerve.

The *serratus magnus anticus*, too, has nerves from the dorsal plexus, because it has to assist in the motions of the body in locomotion; but it receives also the so-called external respiratory nerve, which is, as Sir Charles Bell first called it, the counterpart of the internal or phrenic nerve.

To make this part of Dr. Stromeyer's theory more intelligible, I will take the liberty of transcribing Sir Charles Bell's observations on these three muscles.

1. "The *sterno-cleido-mastoideus*, by its attachment to the sternum, and to the clavicle, raises or heaves the chest. The usual description of the muscle is to consider it as a muscle of the head, the lower attachments being the origins; but when the head is fixed, it becomes a muscle to raise the chest, and its operation is evident in all excited states of respiration, in speaking, and still more in singing, coughing, and sneezing. But there is something necessary to the full effect of this muscle on the chest, for otherwise it will be a muscle of the head, and not of the chest. This leads us to the next muscle."

2. "The *trapezius* must fix the head or pull it backwards before the mastoid can act as a respiratory muscle; and how they are combined we shall presently see. The position of the head of the asthmatic during the fit, as well as the posture of the wounded or the dying, prove the influence of the upper part of the *trapezius* in excited respiration; that is to say, when the shoulders are fixed, this muscle, usually described as a muscle of the superior extremity, becomes a muscle fixing the head." "The *trapezius* has a still more powerful and important influence in respiration when the action rises above the ordinary condition, and that is by drawing back the scapula, to give necessary effect to the action of the *serratus magnus* on the ribs."

3. "The *serratus magnus anticus* being extended over the whole side of the chest, and attached in all the extent from the second to the eighth rib, is very powerful in raising the ribs and holding out the margins of the chest, which would be otherwise drawn in by the diaphragm; and to this effect the intercostal muscles alone would be insufficient in the high or excited state of respiration. But it cannot exert this power independently of the *trapezius*, since, without the combination explained above, its force would be exerted on its more common office of moving the scapula and not the ribs. Unless the scapula be fixed, or pulled back by the *trapezius*, the *serratus* is not a muscle of respiration."

"In this manner do these three powerful muscles hold together in their action, combining with the diaphragm to enlarge the cavity of the chest in all its diameters. These external muscles do not interfere with the gentle actions of breathing. But if the apparatus of respiration is to be employed in any excess of action, in passion, in dying, in speaking, singing, coughing, yawning, etc., these become powerful instruments.

Now, it is to the defective energy of these accessory muscles, that Dr. Stromeyer attributes scoliosis or lateral curvature of the spine.

The action of the *serratus* is to keep the ribs stretched outwards, backwards, and upwards—to raise them and hold out the margins of the chest; but, when from any cause as in individuals whose exercise is inadequate to the maintenance of a healthy circulation and vigorous muscular action, the *serrati* fall into weakened and diminished action, their opposing muscle, the diaphragm, draws the sides of the chest downward and inward, and, as the left *serratus* is generally less active than the right, there is a resulting concavity of the left side of the chest. This begins immediately under the axilla, and no sooner is the equilibrium disturbed than the *serratus* of the concave side acts under unfavourable circumstances. Thus the more it is enfeebled the more does the diaphragm pull in the ribs of that side, and the *trapezius* of the arched side comes to assist in the distortion of the bony framework of the entire trunk.

It must be admitted that the theory is exceedingly ingenious, and it has the incidental advantages of harmonising with the most recent investigations on the influence of the vaso-motor nerves on the functions of respiration and nutrition; and of indicating a system of treatment the most likely to improve the general health by increasing the tone of the inspiratory muscles.

ADVANCE OF NATIONS. Those nations are furthest advanced intellectually and physically which are most thoroughly composite in their character." Dr. Hammond remarks, "that numerous examples of the improvement of races have been furnished in the history of the world;" and that "in the United States we have the most striking example of all. Who can doubt that the activity both of mind and body, the ceaseless energy, the superb physical development of the people, are due to the commingling of the blood of all the nations of Europe? To be an American is to be a cosmopolitan."

Progress of Medical Science.

FATTY DEGENERATION IN POISONING BY PHOSPHORUS. MM. Ranvier, Verliac, and Fritz, have studied the fatty degeneration which is produced in various viscera in certain cases of poisoning by phosphorus, and which has been specially described in Germany in recent years. This memoir is based on the observation of two hospital cases and of several experiments on animals. The following are the pathological results at which they have arrived.

They have found fatty degeneration in the liver, kidneys, heart, and voluntary muscles; but have in vain sought it in other organs.

In the *liver*, the form, size, consistence, colour, and structure of the organ, vary with the amount of change which it has undergone. When the fatty degeneration is general and far advanced, the liver is increased in size; its edges are slightly rounded; its consistence is diminished; and it has an uniform yellowish-white opaque colour. The parenchyma of the organ then is found to consist of a few cells gorged with fat, of granules, and free drops of oily matter scattered through a cellulo-vascular stroma. The fatty degeneration, though occupying all the lobes of the liver, may be unequally distributed through them; the organ then, both externally and internally, seems to be constituted of a yellowish opaque mass, through which are regularly scattered red translucent points, of nearly equal size everywhere. These red points, on examination with the microscope, are found to contain cells nearly in a healthy state. Beyond them, the cells became gradually charged with fat, and at last entirely disappear and give place to granules and drops of oil. The authors of the memoir have observed in animals considerable portions of the liver remaining healthy in the midst of the degenerated parts.

In the *kidney*, when the fatty degeneration is in an advanced stage, the cortical substance is yellowish and opaque; the vessels are engorged with blood, and the glomeruli are red and very distinct. On examining with the naked eye a section placed between two glass plates, transparent points having the linear arrangement of the glomeruli may be distinguished in the midst of a grey opaque mass. The medullary substance preserves its normal appearance. Microscopic examination shews that the tubes of the cortical substance are filled with a considerable quantity of fatty granulations, replacing the normal epithelium. The glomeruli are all covered with healthy cells and contain no granulations. This state of the glomeruli the authors believe to be constant; and they suggest that it may have some relation to the modern theory of the different functions of the epithelial cells of the tubuli and of the glomeruli. The tubes of the medullary substance present some doubtful traces of fatty degeneration. When the degeneration of the kidney is studied in its early stage, it is found that, although the cortical substance may appear to the naked eye to be scarcely altered, it may yet be in an advancing state of degeneration. Thus some of the tubuli are healthy; others contain fatty granules within or without the cells; while others are loaded with fat. In one instance, the cortical substance of the kidney of a young cat, which had undergone fatty degeneration, was found to weigh 1.40 grammes; on treating it with ether, 0.75 gramme, or 53 per cent., of fatty matter was extracted.

In the *heart*, the morbid change follows a course analogous to that in the liver and kidneys. Sometimes the degeneration attacks the entire organ; sometimes isolated points alone. The fatty transformation may be quite complete; or it may consist of granulations scattered at distances throughout the fibres, which appear

to have lost their striated character. In the two cases in the human subject, the degeneration, in a slightly advanced stage, was uniformly distributed throughout the heart. In one of the animals on which experiments were made, the fatty degeneration appeared in distinct nuclei; the rest of the organ being healthy.

As regards the *muscles*, the authors found in those of the tongue, diaphragm, trunk, and limbs, some of the fibres having undergone perfect fatty degeneration lying among others in a healthy state. Hitherto they have found the degeneration of the muscles in those cases only where that of the liver, kidneys, and heart, was far advanced. (*Archives Génér. de Méd.*; and *Gaz. Méd. de Paris*, 11 Octobre, 1863.)

STRUCTURE OF INDURATED CHANCER OF THE PREPUCE. In a paper read before the Société de Biologie in Paris, M. Ordonez has given the following summary of the appearances observed by him on making a histological examination of indurated chancre. 1. The epidermis is considerably thickened around the ulcerated part. The most superficial cells all present a central nucleus, tolerably large, with from one to four nucleoli; contrary to what is met with in healthy epidermis, where the cells lose their nuclei as they approach the external surface of the skin. 2. The interpapillary digitations in the true skin are larger at the level of the chancre than in the healthy skin. The epithelial cells are very closely packed, larger than in the normal state, and infiltrated by a very transparent fluid, coagulable by alcohol. 3. At the level of the papillary layer of the skin, small hæmorrhagic clots may readily be detected, produced, no doubt, by the rupture of the small capillary loops distributed in the papillæ. Hæmotosine, mixed with red corpuscles in various stages of change, is effused in patches, between the papillary and the mucous layers. 4. The meshes of the cutis vera, from the papillary layer to its deepest portion, are infiltrated with a large quantity of plastic lymph. On merely making thin slices of the chancre, a large quantity of a very transparent, slightly viscid fluid, coagulating slowly on contact with the air, may be made to escape by pressure or by the action of the cutting instrument. This liquid, examined microscopically and with the aid of reagents, appears to be plastic lymph, or blastema. 5. The papillæ are increased in size, without being altered in shape. They are infiltrated with a large number of embryonic or transitory elements of the fibrous or connective tissue. These consist of round or oval nuclei, varying in diameter from '00016 to '00028 and '00036 of an inch; of small fusiform, fibro-plastic bodies in an ordinary state of evolution; and of small bundles of fibres of fibrous or connective tissue in progress of formation, and still presenting nuclei. 6. In the substance of the derma are to be found a number of fibrous cords, with perfectly developed fibres, and presenting a brilliant white aspect, contrasting remarkably with the adjacent tissue. This appearance is best presented by recent sections of the induration, examined by the aid of distilled water; it is also present, but less distinct, in specimens that have been preserved in alcohol or glycerine. M. Ordonez thinks that the alterations in the skin which he has described, satisfactorily explain the peculiar induration characteristic of the infecting chancre. (*Gaz. Méd. de Paris*, 11 Octobre, 1863.)

EXTENSIVE DEVELOPMENT OF CYSTICERCI IN THE HUMAN BODY. Pierre Massot, aged 77, was admitted into the Hôtel-Dieu at Lyons in November 1862, with pulmonary catarrh and general weakness. On February 9th, 1863, he broke the neck of the left thigh-bone, and was consequently removed into the surgical wards, under M. Delore, where he gradually became weaker, and died on April 16th. M. Delore had noticed, during the man's life, a number of small tumours on the chest,

along the arms, on the elbows, and in the armpits. The lower limbs were very œdematous, so that the presence of any tumours in this situation could not be ascertained. The swellings were subcutaneous, and were not adherent to the skin nor to subjacent parts. Some of these seemed to be united by fibro-cellular bands, as they were easily moved together. The skin over them was unaltered; they were of the size of haricot-beans, very hard, and presented no trace of fluctuation. It was thought that they were of fibro-plastic character.

Thirty-hours after the man's death, the tumours were examined by MM. Delore and Bertholus, and were recognised to be due to the presence of cysticerci. Several cysticerci were found in the subcutaneous tissue of the conjunctivæ. The muscles were pale and easily torn; all those of the trunk and limbs contained numerous cysticerci; in the diaphragm there was one nearly as large as an almond. It was estimated that the subcutaneous conjunctival tissue and the subaponeurotic and intermuscular tissue contained about 2,000 of these bodies. They occupied principally the points of insertion of the muscles; their longest diameter lay parallel with the fibres, which they separated without destroying them; they were also lodged in the intermuscular spaces. No cysticerci were contained in the bones. The head of the thigh-bone was broken outside the capsule, and the great trochanter was also detached. Union had not taken place. There were no cysticerci in the eyes; nor at the base of the tongue, where they are always present in measly pigs (up to the present time, only one case of cysticerci in the human tongue has been noticed; it is related by Rudolphi). The liver, spleen, and kidneys were quite healthy; the latter presented numerous cysts on their surface. The pancreas contained one cysticercus. The mesentery was literally crammed with them. The parotid glands contained several. Three or four were found in the sides of the larynx. There were sixteen on the surface and in the tissue of the lungs. One was placed superficially on the anterior wall of the heart. The intestines were carefully washed and examined; but no tæniæ nor worms of any kind were found. In the nervous centres, 111 cysticerci were found; viz., 22 in the membranes, 84 in the cerebrum, 4 in the cerebellum, and 1 in the medulla oblongata. None were present in the spinal cord. On the surface of the brain, a rather large number of cysticerci had formed a small cavity in the substance of the convolutions; others were seen through a thin layer of cerebral substance. The ventricles, choroid plexus, and optic thalami, contained a considerable number. The brain was soft and diffuent.

An examination of the parasites showed that the vesicles varied much in size, and that they contained scolices having a double range of hooklets varying from thirty to thirty-four in number.

Very little information could be obtained as to the antecedent history of Pierre Massot. As far as could be ascertained, he was a beggar, led a wandering life, and was frequently intoxicated. His food ordinarily consisted of bread, cheese, and pork. In the part of the country where he lived, measly pork is common; but no cases of tæniæ have been noticed there.

Cases where the muscles and organs have been generally occupied with cysticerci are very rare. M. Delore has met with only two such instances; one related by Werner, the other by Demarquay. In the latter case, most of the muscles contained cysticerci; but among the internal organs, the lungs alone. In a case of ununited fracture of the humerus, under the care of Dupuytren, where resection was performed, several hydatids were found in the fragments. The fracture was attributed to their presence, as the patient had broken his arm in throwing a stone with moderate force. (*Gazette Méd. de Paris*, 3 Octobre 1863.)

ETHERISATION FOLLOWED BY DEATH. At the meeting of the Imperial Society of Medicine in Lyons, on July 20, M. Chassagny communicated the case of a lady aged 40, to whom ether was administered previously to the removal of an urethral polypus and two sebaceous cystic tumours on the head. Thirty grammes of ether (rather less than an apothecary's ounce) were used; but the anæsthesia produced was incomplete, and the patient was aware that the operations were being performed. The administration of the anæsthetic was not pushed further, because the stage of excitement did not manifest itself, and because, on the contrary, general coldness, and slowness of the pulse, were present. On the completion of the operation, which occupied a quarter of an hour, vomiting set in; the coldness increased, and was accompanied by clammy sweats; and the patient had convulsions, attended with foaming at the mouth. The attack passed away in a few moments, but soon returned with equal intensity. After the fourth attack, the patient died. M. Chassagny considered that the patient had died of eclampsia induced by etherisation, which was thus the indirect cause of death. She had previously been subject to epileptic vertigo. (*Gaz. Méd. de Lyon*, 16 Octobre, 1863.)

NEW CURE FOR HYSTERIA. The *Presse Médicale Belge* relates a case of violent hysteria which was instantaneously checked by a singular mode of treatment. The patient was a prostitute, who seemed threatened with imminent asphyxia, and in whom orthopnea was followed by an immobility which might have been mistaken for actual death. Professor Thiry, who was summoned to her assistance, was induced by a tremulous movement of the lids, combined with spasmodic action of the ocular muscles, to admit the presence of hysteria. He remarked that pressure exercised over the hypogastric region relieved the symptoms, which relapsed as soon as the pressure was removed. Under these circumstances, M. Thiry, conceiving that more energetic pressure was required, grasped with both hands the inferior part of the abdominal walls, and suddenly twisted them round; the patient uttered a slight scream, sighed deeply, and experienced immediate relief. This singular manipulation was continued for ten minutes, and at the expiration of this short period nought remained, but the sense of general malaise which invariably follows great convulsions of the system. (*Jour. de Méd.*)

Reviews and Notices.

INTRODUCTION TO ANTHROPOLOGY. By Dr. T. WAITZ. Translated by J. F. COLLINGWOOD. Pp. 404. London: 1863.

A SOCIETY, called the Anthropological, was founded at the beginning of this year (1863); and, amongst other promises published in its programme, was this, that it intended to issue a series of standard works on anthropological science, and that the first of them would be the volume of Dr. WAITZ. This work was so chosen, because, in the opinion of the Council of the Society, no modern work contained so good an epitome of the subject referred to.

The science of anthropology, like this Society itself, is in its infancy; and, therefore, every systematic work on the subject must, at the present day, be very imperfect; but still it is well to be able to lay hand on a work which contains references to all the best authorities. The personal opinions of any author in this matter are only of secondary value. What is now required is a collection of authentic

facts, from which may ultimately, perhaps, be drawn true and grand conclusions concerning the nature of man. This is how the Council argue. The name of Dr. Waitz is probably not familiar to many of our readers; but he is well known in his own country as a candid, erudite collector of facts. His book shows him to be a man of immense research.

The First Part of the volume contains The Physical Investigation of the Human Species, discusses the nature of species, tells of the nature and extent of the physical agencies to which man is subjected (or to use the not very lucid language of the translator, "the mode and magnitude of the physical changes to which man is subject.") Here, also, are detailed the Chief Anatomical and Physiological Differences which distinguish Different Races; The Results of Intermixture of Different Types; and The Peculiarities of the Mongrels. In the fourth and fifth sections of the First Part, we have also a Review of the Principal Theories regarding the Unity of Mankind; and a chapter On the Classification of Mankind.

The Second Part of the work is an Investigation into the Psychological Character of Man. We have a chapter on The Specific Characters of Man; another on The Primitive State of Man; and one, The Various Degrees of Civilisation, and the Chief Conditions of its Development.

We need hardly say, that it is quite out of our power to give any detailed account of this volume. It is itself a volume of details. Its nature, character, and value, may be gleaned from the criticism bestowed upon it by the Anthropological Society, and by the fact of its being their first offering to their members. There can be no doubt that it is the best epitome of matters anthropological now contained in our language; and will be of great service to the student as a book of reference.

British Medical Journal.

SATURDAY, DECEMBER 26TH, 1863.

MR. SYME ON MEDICAL EDUCATION.

LAST week, the Edinburgh College of Surgeons held a very successful *conversazione*; the success having been promoted, in the main, by the announcement that Mr. Syme would then and there deliver himself of his views on medical education. Mr. Syme has every claim to a hearing on this score. He has been upwards of forty years a teacher of anatomy or surgery; and must, therefore, know pretty well what kind of food is best adapted to the mental digestion of the student, and for the manufacture of a useful practitioner of medicine.

Mr. Syme, during the last session of the Medical Council, proposed the following resolution, which was carried unanimously.

"That the Medical Council resolve to take into consideration, at the next meeting, the propriety of recommending a reduction in the number of courses of lec-

tures which the regulations of the various licensing boards at present render obligatory.

"That, with the view of facilitating the consideration of this subject, the General Council request to be favoured with the opinion of the bodies in Schedule A on the possibility and propriety of this before next meeting."

In consequence of these resolutions, the licensing bodies will be called upon to express their opinions on the subject of medical education; and Mr. Syme, therefore, thought the moment opportune for a few public remarks on the subject. These are his views.

Mr. Syme tells us that the period has arrived when it is necessary to relieve the student from the overwhelming burdens which now oppress him, or rather his memory. The approach of this period has been long anticipated by some teachers; for already, from England, Ireland, and Scotland, voices have been sent to the Council calling attention to the evils which result from the present insatiate system of overteaching.

Only compare the curriculum of thirty or forty years ago with that of the present days, and you at once see the nature of the impossible burthens laid upon the modern student. He has neither time for thought nor reflection. His whole day is mainly occupied in cramming his mind with impracticable details. "Chemistry, in my student-day," says Mr. Syme, "was a science of which any ordinary intelligence could embrace the details; now it requires the entire devotion of a man's life. Botany, again, was an agreeable recreation then; now it is an oppressive weight on the student's mind. In anatomy, moreover, the expansion of ideas is no less remarkable." In fact, all departments of medical study have so expanded that "the education of our profession has become an effort of memory, rather than a process of mental training—no time being left for observation or reflection."

No one can, we think, deny the truth of the statements so courageously, and we must say skilfully, stated by Mr. Syme. But how is the relief to come? Here lies the pinch. No man likes to be his own executioner; and yet it is evident that, if the student is to obtain the relief desired, some of our professors must submit to the partial or total immolation of their own pet scientific lambs. There is no use attempting to blink the matter. Professors—some of them, at all events—must moderate their pretensions, if the reform be carried out, painful as the self-sacrifice must be.

Mr. Syme tells us what, in his opinion, ought to be done. The curriculum and examinations of licensing bodies must be regulated by superior authority; and so also must the lectures of the individual professor. The shepherd requires looking after, as well as his flock. *Imprimis*, as regards details, what should be especially provided for is, that the student should be enabled to imbibe thoroughly

those things which are most essential to him in after life as a practitioner of medicine, and which can only be obtained during his period of education. Of these, above all stand preeminent anatomy and hospital teaching. But, under the present system, such is the multiplicity of classes forced upon the students, that they have no sufficient time for these things. Scarcely have they put on their anatomical aprons than the bell rings, and away they have to trot to classes—to the ding-dong lecture-room!

But, however injurious be the exceeding number of classes, the mischief of them is as nothing, compared with the present system of examination.

"After thirty years' experience as an examiner," says Mr. Syme, "I feel quite satisfied that the means of ascertaining the extent of qualification are productive of little good and very great harm, since they afford no trustworthy criterion of real knowledge, and most seriously interfere with the concentration of mind requisite for obtaining a firm grasp of it."

The candidate, as matters now go, presents himself for examination with his memory well stocked with answers ready fitted for the questions which he knows or expects the professor will put to him, and he passes a capital examination. But, if the same man be really tried with any simple practical test, he often fails completely in his reply. This all results from the fact that, instead of storing his mind with healthy knowledge, he has been occupied in slavishly getting up the answers which he expects will be required of him. The demonstrator of anatomy, Mr. Turner, tells Mr. Syme that he has noticed a progressive falling off in dissection since the new regulations came into force; and he attributes this mainly to the circumstance that the students are improperly occupied with the preliminary education. Hence the whole plan of the present system of examinations, Mr. Syme unhesitatingly asserts, requires entire alteration.

"The great object of teaching is to promote the acquisition of learning; and, unless it accomplishes this, it may be regarded as useless, although characterised by the most brilliant eloquence and the profoundest science. It has been too generally supposed that the mere enunciation of facts and opinions constitutes teaching; but this may require for its reception only an exercise of memory, while learning is an act of the mind that may be likened to the digestion and assimilation of bodily nourishment. The teacher should excite and maintain the appetite for this mental food, and supply it in such quantity, quality, and order as may be most conducive to the end in view, taking care not to oppress the memory with unconnected crudities, or confuse it with conflicting theories."

Mr. Syme, having thus explained the nature of the evil he has to do with, goes on to tell of the remedy which he proposes for the cure. *Imprimis*, it is essential that the examination for preliminary education be satisfied before the strictly professional course be commenced; next, the professional course ought not to be commenced before the pupil has attained a reasonable age; thirdly, four years' study

in a school, where ample means for anatomy exist, and to which a large hospital is attached, should be required; fourthly, "I would require attendance upon all the classes that seemed really necessary"; and, fifthly, would demand from the candidate for diploma a certificate from each of his teachers of his due proficiency in their respective departments. More than this, Mr. Syme would subject the teachers, *ipsos custodes*, themselves to a healthy criticism; for they, also, it appears, require looking after as much as their pupils.

"I would have every lecturer called upon from time to time by the body from which he derives authority to produce a syllabus of his course; and if it should thence appear that he loaded the memories of his pupils with undigested or indigestible details, or allowed an unruly hobby to carry him away from the field of practical utility into the regions of unprofitable speculation, or, still worse, taught doctrines not conducive to sound practice, I would endeavour to correct the evil of his ways by remonstrance, by censure, or, if necessary, by deposition."

These opinions of Mr. Syme were delivered before a large assemblage of his medical brethren—the *élite* of the Edinburgh profession; and it is well that we should add, were most cordially received. The speaker, we read, "sat down amidst long and protracted cheering."

Dr. Christison and several other persons, on the same occasion, expressed their views on the subject. Dr. Christison's were, in the main, exactly those of Mr. Syme. He said that the subject had attracted his attention ever since he had held a professorial chair.

"The great difficulty was, as Mr. Syme had stated, that the range of education had extended to such a degree that it was perfectly impossible for any student to master all the different branches of study. In the practice of surgery, Mr. Syme had borne testimony to the extension of the course; and in that of medicine, he could, from an experience of forty years, state that in several of its branches it had extended to an incredible degree. But, in addition to the practical courses, they had the fundamental studies of chemistry, botany, anatomy, physiology, and natural history; and the first point of difficulty being the extent of available knowledge, the next point was how much of all these sciences was to be taught—how much the student must acquire to qualify him for the profession? There was no doubt great difficulty in saying where they might retrench; but he thought he could see some subjects which might be usefully curtailed; and he thought that if those who were well instructed in the teaching of the several branches were to put their heads together, and take up the matter impartially, they would be able to come to some tolerably clear understanding of what the teachers ought to be expected to give. It was impossible to go into details here, and they had yet a good deal to learn as to details; but he believed all would agree in the general necessity of some curtailment taking place. As to examinations, he hoped the Medical Council would act decisively; for he was quite satisfied that the system of examinations had extended a great deal too far. He thought the former system produced as good graduates as the present; perhaps better. Not that the teaching in itself was worse, or the students less diligent; but he thought the system of constant examination both in class and by faculty was injurious to calm reflection on

the part of the student. He thought that examination had been too highly estimated as a means of ascertaining the capabilities of the student; and as an examiner of thirty-one years' standing, he could assure them that very frequently indeed, examination was a very feeble test of a man's ability as a practitioner. In the practical departments of medicine and surgery, he did not think that a man could have too much examination; but it was a great hardship to subject students at the end of their course to an examination which rendered it necessary for them to keep up the mere details of their fundamental studies."

We are exceedingly glad to find that this most serious question of medical education is likely to be made the subject of discussion in the Medical Council, and in the direction pointed out by Mr. Syme. No unprejudiced person who is acquainted with the medical education of the present day, can do otherwise than feel that the student is compelled to undergo the infliction of a great many lectures which, under the circumstances, are worse than useless to him, and chiefly for this reason, that they obstruct his progress in the acquisition of other much more important knowledge. Besides this, on the face of it, the present system bears the plain signs of absurdity and contradiction. What can be more utterly absurd, than compelling the student to run from class-room to class-room, hour after hour, and expect him to imbibe the instruction of the teacher he meets with in each of them. The process is literally and simply the same as cramming a jaded stomach with loads upon loads of viands more or less heavy or highly-spiced, and then expressing surprise that nausea and weakness result, instead of the genial warmth and constitutional strength of a reasonably supplied appetite. We do this, and yet call ourselves medical men, physiologists, and partly psychologists.

Really, we cannot imagine that any professors will be found to support such an outrageous system in argument. But the practical struggle required for its alteration will require self-sacrifice, and of course no professor will care to be the victim; and naturally, also, most professors will believe their own pet study to be the most important in the scheme of education. How, then, is any real settlement of the difficulty to come? Has the Medical Council either the courage or the virtue to lay down laws in accordance with reason? Has it patriotism enough to make the necessary sacrifice? We shall see. In the meantime, we recommend Mr. Syme's "conversation" to the consideration of the profession; and will, on another occasion, point out what seem to us to be the courses of lectures which, above all others, require pruning or suppressing.

BOARDS OF GUARDIANS AND THEIR MEDICAL OFFICERS.

THE Blackburn Board of Guardians, as well as the Southampton Board, is at difficulties with its doctor.

The Blackburn Board has, it appears, been pleased to censure their officer, Dr. Gillibrand; and Dr. Gillibrand has, we are rejoiced to see, cast back their censure at them; and told them to look out for another to fill his place. The doctor is accused of neglect in visiting a patient; and if he would have cried *peccavi* and apologised all would have gone well; but he would do nothing of the kind. He is, therefore, more than censured; and saves further trouble by the following reply:

"You expected me to apologise—that is, to cringe and play the toady. You have mistaken your man; it forms no part of my system to practise sycophancy with physic. I have to inform you that I shall resign so thankless an office; but, for the following three reasons, not till the current quarter terminates, provided always that this shall be agreeable to your majesties:—Firstly, to enable the Poor-law authorities to make such investigation as they may think the case requires; secondly, that the question of arrears of which your *very honourable board* have so long defrauded me, may be laid before the judge of the County Court, of which proceedings you will be informed to-day; thirdly, and though last not least, in order that you may have sufficient time to appoint a successor, that the poor paupers, in whom you take *such a holy* interest, be not left uncared and unprovided for."

Really, it is time that this huge farce of Poor-law medical relief should be held up in its true light before the world. Seriously, we ask those members of our profession who are engaged in the work, whether it is possible for them properly—or with justice to the poor—to perform the labours thus iniquitously thrust upon them.

How often have we not had to record the virtuous indignation of "the Board" at the neglect of the doctor, their usual scapegoat, for not duly visiting some unfortunate pauper, when, as they must well have known, his physical powers were unequal to the work imposed upon him. In a populous district, like that of the Southampton District, if a man were occupied every hour of the day and of the night, he would not have time enough to properly do the work which falls to his hands.

But the doctor's hardships are not the worst part of the affair. The real sufferers in this iniquitous—for we can use no milder term—payment of the doctors—the silent, and perhaps the unconscious victims of the abominable system—are evidently the poor patients themselves.

The world has no right to expect from medical men more than from other members of society; and we put it to the profession, what sort of a "medical visit" is that likely to be which is paid for at the rate of one farthing (as Dr. Griffin tells us he was paid)? What sort of physic is the patient likely to get for a farthing? And then, again, are we wrong in asking, if the patients do not, in the very largest majority of cases, want food rather than physic? Is it not true, again and again, that a bottle of physic is given where a pound of flesh would be much better applied? Is it not a fact, that medical gentle-

men who conscientiously give frequent orders for food and extras of that kind fall into great disgrace with the Guardians? Is it not the fact, that medical relief too frequently acts most injuriously to the interests of those whom it is meant to relieve in the way described; viz., that through its intervention the patient often gets a stone instead of bread—a bottle of physic instead of beer and beef? Let any one refer to Dr. Griffin's account of his labours, and say, is it possible to call such practice the practice of medicine? Dr. Griffin's letter, we must say, has made revelations, in set terms, which throw a new light into this dark business. He demonstrates the fact, that two men cannot do the work which he is supposed to do. And we cannot help, when we hear this, but think of the wretched poor. Them we regard as the real victims of this heartless system; and we earnestly ask all those of our professional brethren who are engaged in these employments, under similar terms to those related by Dr. Griffin, whether they are doing justice to their fellow-creatures, the poor, in undertaking work which they know they cannot perform?

We cannot but regard the conduct of many Poor-law Boards of Guardians as little better than a conspiracy against the life of the poor. Well, in the case of the Southampton Board, what shall be said of their conduct, if they still maintain their present system, after the receipt of Dr. Griffin's letter and the appeal from the Southampton Medical Society? Can it be regarded as much other than what we have here denounced it to be? And if so—we put it to the profession—can it be right that members of our medical profession should enter into terms with such conspirators, to carry out a system which must produce most melancholy results?

Since these lines were written, we find that the Southampton Board of Guardians has been shamed by Dr. Griffin's *exposé* into doing something. The Board has, in fact, divided the district into three, and gives each of the medical men £125 per annum. But this change was not caused without a fight. We should like much, at the end of six months, to have another such a statement as that put out by Dr. Griffin, and learn what is the work done for the pay at present given.

THE WEEK.

WE sincerely trust that George Townley may not die on the scaffold; because if he does not, no murderer can ever be justifiably hanged in this country for the future. If the plea of madness is to avail in his case, some score of judicial murders have been committed in this country during the past few years. We could point to several hangings during the past year, where the hanged presented the distinctest

signs of insanity at the time they committed the murders. But we really cannot, in this case of Townley, find any pretence of the kind. The stated signs of lunacy in his case, appear to have been derived mainly, if not entirely, from the outrageous language used by him to Dr. Winslow, of which conversation we have already pointed out the suspicious character. And besides, there is an account of hereditary madness in the family. Beyond this, there does not appear to have been a single symptom of the man's mind being disordered; at all events, not at the time he committed the horrible murder. We can only say, that if this man be not hanged, the hangman's office must be abrogated in this country; and our own wish is that it may be.

THEY manage these things differently in France, if not better. The government publicly acknowledges the existence of scientific medicine. On the 16th inst., for example, we find the Minister of Public Instruction "assisting" at the meeting of the Academy of Medicine. He wished thereby to show to the Academy the interest which the government took in the labours of the Academy. "The Academy is the council of the government in matters touching the public health," the minister said to the Academicians, "and in this sense its doings are worthy of the greatest attention. By the aid of medical science, the mean life of man has been prolonged twelve years during the last half-century. Go on, gentlemen, in this direction, and prolong the duration of human life. We, in the meantime, at the University, will try to make mankind better and more worthy." The minister wound up with a *mot charmant*. "In listening to your *secrétaire perpétuel*, I thought myself in the Academy of Sciences; and in hearing your annual secretary, I thought myself transported to the Académie Française."

THE scheme lately brought forward for settling the Indian army medical staff has, it appears, turned out a failure, or rather has been abandoned. The result of this is that the assistant-surgeons are now placed in a hopeless position. Most assuredly, we should strongly advise all young medical men who are starting in life to think twice before they engage themselves in such a doubtful service.

THE election of president of the Medical Council is in the hands of the Council, not of the Government, as we have seen it stated. The Council can choose either one of themselves, or can go outside the Council for a president, and, if they please, elect even a layman to that high office. Sir B. Brodie was the first president; and when he retired, Mr. Green was elected from out of the body of the Council; and, consequently, a vacancy was created in the Council.

The vacancy was filled by Mr. Arnott. Whom will the Council elect? We cannot pretend to prophesy; but as two surgeons have held the office, it seems natural that a physician should now try his hand at ruling the Councillors. And if a physician be the man, then, we fancy, all eyes must be naturally turned towards the President of the College of Physicians. For our own part, we can safely say, that we know of no member of the profession better fitted by his high professional position, and his dignified and most business-like way of directing the process of business, than Dr. Watson. His election would, we imagine, have the rare quality of being acceptable to all "parties."

DR. ROBERT WOLLASTON is, we find, a candidate for the office of coroner of the Midland Division of the county of Stafford. We need not repeat to our readers the many arguments which have so often been adduced in favour of medical coroners. The excellent way in which medical coroners perform their duties in the country shows the propriety of their election. It is the duty of our brethren, therefore, to assist every properly qualified gentleman who undertakes the fight necessary for obtaining such an appointment; and we sincerely trust that the profession in Staffordshire will not fail to give their cordial assistance to Dr. Wollaston, who has, no doubt, a hard battle to go through in the matter.

MR. LAWRENCE has been elected, by the Academy of Sciences in Paris, a corresponding member of the Institute.

The General Hospital of Vienna possesses a special electrical operator. Dr. Fieber, we read, has just been appointed to the place, to fill the death-vacancy of Dr. Klimpacher.

M. Chevreul has, he says, studied the composition of suet for forty years; and now points out the difficulties which surround its analysis. He will shortly show the existence in it of a dozen new organic compounds.

BIGOTRY. Dr. Cullen repeats a charge brought against the managers of the Adelaide Hospital in Dublin. A Roman Catholic patient, who was to undergo a very hazardous operation, naturally wished to prepare himself for its possibly fatal termination, and requested that a priest might be brought to him. But, according to the rules of the institution, no priest or nun can be admitted within its walls, and his request was peremptorily refused. He had therefore to be carried in his bed, on a cold winter's night, into the street, where, in the open air, the consolations of his religion should have been administered to him, but for the charity of some one in the neighbourhood, who gave the sick man a shelter in his dwelling while the clergyman performed his office. Such a tale as this requires confirmation. It is incredible in the year 1863.

Correspondence.

IRIDECTOMY.

LETTER FROM W. R. WILDE, ESQ.

SIR,—I have read with much interest all the communications which have appeared in the *BRITISH MEDICAL JOURNAL* during the past three months upon the subject of iridectomy as a cure for the disease now called glaucoma, and in reply to your letter asking for my opinion about iridectomy, I have, in the first place, to refer you to a tract on *Medical Epidemics—Glaucoma and Iridectomy*, of which I have forwarded you a copy, and which originally appeared in the *Dublin Quarterly Journal of Medical Science* for August 1860; and, in the second place, to state that from all I have observed and read since the publication of that primary objection to iridectomy, I see no reason to alter the opinions therein expressed.

I have known cases of ocular diseases in former patients of mine, where the operation of iridectomy was performed and attended with the worst results. I have known cases in which patients labouring under glaucoma and cataract, with whom I have refused to meddle, proceeded to London and were operated on, but without the slightest relief. I have known diseases called glaucoma which bear no resemblance to any of the forms of that affection, even as detailed by modern writers. I have known traumatic cataract produced by the operation. I have seen several cases in which a piece of the iris had been removed, and in which the patients said they were "greatly benefited," but when I came to test critically the amount of vision obtained by the operation, it was not that stated by these patients. In examining a case of this kind, especially where the patients having, perhaps, previously received an adverse opinion with respect to the results of an operation, it should be borne in mind that such persons are apt to imagine and to exaggerate to others the benefits they have received from any rare, new, or extraordinary practice. To be admitted as evidence in a court of calm professional judgment, all such cases should be seen by the jurors and carefully examined *prior to the operation*. In the disease called acute glaucoma, or violent inflammation of the internal structures of the eye, attended with partially dilated pupil, etc., I think the removal of pressure by evacuation of the aqueous fluid (and, if it please the operator, the excision of a piece of iris also) a very safe practice in so formidable a disease, but it is not new, as the readers of Wyseheart, Middlemore, Wardrop, and others, must know. Such is also the opinion of Mr. Dixon; but cases of that nature are comparatively rare, and they very often occur in damaged eyes,—previously partially or altogether amaurotic.

I quite agree with the opinion expressed and reiterated by "A Surgeon," that cases of chronic glaucoma must have been as common formerly as now, and therefore should have been met at the corner of every street. In Ireland they certainly are comparatively rare; and I have yet to learn that the inhabitants of this country have derived any ostensible benefit from the introduction of this novelty, for an affection which a patient of mine lately styled "the new German disease."

I have yet to learn the *rationale* or principles upon which the operation is performed, notwithstanding all that has been written on the subject. I do not believe it is explainable. But, say the upholders of the operation, the results are manifest; the cures are abundant. Here I join issue with them; but having, in my former investigation of this subject, met with much discourtesy, both *vis à* voce and in print, I have no desire to again enter into a field likely to bring me into personal colli-

sion with gentlemen and friends who hold adverse opinions. I could do it (but the task would be an invidious one); of again taking up the reports of "cures" of chronic glaucoma by iridectomy, and shew, from internal evidence contained in their recital, that they required emendation to render them thoroughly worthy of acceptance.

If iridectomy is a cure for any ophthalmic diseases not otherwise amenable to treatment, it is a truth, and will prevail, no matter how it may be opposed here or elsewhere.

If, on the other hand, it is not a cure for such affections, and only tried as a novelty on account of the great authority of its supporters, it will soon come to an end.

A third case may, however, arise in process of time, after the subject has been fairly tested and sifted in all its bearings; that is, that there may be a few cases in which it is applicable out of the multitude to which it is now applied. Time, that tests all things, alone will effect this. Meanwhile, I think the profession owe you much for the fair manner in which you have permitted this matter to be discussed in the columns of your JOURNAL.

In conclusion, I beg to refer you, in addition to the tract which I have just sent you, to the pages of the *Dublin Hospital Gazette* from August to October 1860.

I am, etc.,

W. R. WILDE.

Dublin, Dec. 19, 1863.

P.S. Since writing the foregoing, I have just seen your JOURNAL of this date, containing Mr. Bowman's proposal to test the efficacy of the new plan of treatment now under discussion, by showing his patients to skilled and experienced oculists "*before and after an iridectomy properly performed.*"

This I think fair; but to be effective, the patients should be examined and reported on before any operation is performed, and the cases pronounced to be really ones of chronic glaucoma, without the complication of cataract, opaque cornea, or adherent iris; for, in many instances, in each of these three latter, artificial pupil, by means of lateral excision of the iris, will, if successfully performed, be beneficial. Such mode of treatment is even applicable to cases complicated with those affections known to our forefathers as amaurosis.

Dr. Bader's tabular statement, with respect to the eighty-four cases operated on at Moorfields Hospital four years ago, shows what was the result of the trial made at that time; but I am sure that no sound oculist would now think of operating upon cases so "rotten" as were then subjected to iridectomy. The "epidemic" alluded to in the *Dublin Quarterly Journal* of 1860 has somewhat subsided; and I presume better selected cases have been operated on, and the errors of the past have led to present improvement in this matter. I, therefore, again say, I think Mr. Bowman's offer a fair one; and, as cases of glaucoma are so common in London as we read of, there can be no difficulty in testing the matter.

LETTER FROM JAMES DIXON, ESQ.

SIR,—I had intended not to have taken part in the controversy about iridectomy, which is now being carried on in your pages; but in the editorial article of this day's JOURNAL, I am mentioned in such a manner as to demand my immediate notice.

My name is associated with the names of several eminent ophthalmic surgeons of the present day, of whom the writer of the article says, "Their opinion is decidedly adverse to the operation of iridectomy, *as at present practised.*" And farther on, the same surgeons, myself included, are mentioned as not giving "their assent to iridectomy." If the writer, instead of the passage I have marked in italics, had employed the

words "as at present *abused*," I should probably have still maintained silence; but while I deplore the reckless manner in which iridectomy is so often resorted to, I cannot let it be supposed that I am indifferent to its very great value in suitable cases.

The manner in which iridectomy was first brought under the notice of the profession, without any attempt towards a rational explanation of its action; the hasty way in which it was taken up by the inexperienced and misinformed; the gross mistakes and consequent ruin of eyes that resulted from it; all this impelled me, as I happened to be publishing just at the very time of this *furor*, to raise a warning voice against the hasty practice of an operation requiring for its safe performance great care and skill, and the indications for which, in the absence of all rational explanation of its *modus operandi*, could hardly be appreciated by those who were in such a hurry to practise it.

My little work was specially intended for those commencing the study of diseases of the eye; and for their benefit, I mentioned some of the instances in which I had known iridectomy to be followed by the most destructive results; and I might have cited many more, had my object been simply to decry the new invention.

Some time afterwards, my friend Mr. Wilde wrote to ask my opinion of the operation; and, still anxious to protest against the reckless way in which it was being performed, I stated what I had seen of its disastrous results. (*Dublin Hospital Gazette*, September 1, 1860.) At the same time, I mentioned that, under certain conditions, and in peculiar cases, I had found "permanent benefit" to result from its employment.

During the last three or four years, I have performed iridectomy for "acute glaucoma" on a large number of patients, both in public and in private; and in suitable cases—and here is the important point of the question—it is a cure, or rather, I should say, *the only cure*, for an affection which formerly always hurried, and still, but for this operation, does hurry, the patient into utterly hopeless blindness within a few days, or even hours, from the onset of the attack.

No doubt, a great deal of the confusion now existing in the minds of medical men, as to the value of iridectomy as a cure for glaucoma, arises from the fact that, for want of a better term, we have employed one already in use in ophthalmic surgery, as designating a disease most familiarly known in its chronic, incurable form.

True acute glaucoma—the disease for which iridectomy is a cure—is the very first outburst of an inflammation which, if left unchecked, causes a degeneration of tissues, leading to total blindness, admitting afterwards of no alleviation either by medical or surgical means. But numbers of these hopeless chronic cases are now-a-days operated upon by the blind—I mean morally blind—advocates of iridectomy. And I still maintain what I expressed three years ago, in my letter to Mr. Wilde, that no mode of surgical procedure proposed within my remembrance, has been more frequently done without benefit, or even with positive damage to sight."

Without going into a full description of the symptoms which indicate the operation of iridectomy, I may just observe that two marked signs have been pointed out as sure guides: cupping of the optic nerve, and abnormal tension of the globe. Now, as regards the cupping of the nerve, it very often cannot be detected by the ophthalmoscope in the worst cases, just those in which an operation is imperatively and urgently required. As for the tension of the globe, it is present in several inflammatory conditions in which iridectomy is wholly inadmissible. Mr. Bowman, in one of his recent letters, goes so far as to say that "all diseases attended with augmented tension of the eyeball, should now be embraced within the term glaucoma, and as a class should be treated by iridectomy." (P. 593.)

We can only judge of *tension* by its phenomenon *hardness*; and to say that all inflamed eyes which are harder than natural are to be subjected to iridectomy, will be to inflict that operation upon numberless cases of iritis, keratitis, etc., which can be perfectly and readily cured by judicious medical means.

I am, etc.,
JAMES DIXON.

Portman Square, Dec. 18, 1863.

Medical News.

BIRTHS.

THOMAS. At Llanfair Caereinion, on December 16th, the wife of *W. W. Thomas, Esq., of a son.
WILLIAMS. At Birmingham, on December 16th, the wife of *T. Watkin Williams, Esq., General Secretary of the British Medical Association, of a son.

DEATHS.

BLOUNT. Samuel, Esq., Surgeon, at Offord Road, Barnsbury Park, aged 73, on December 16.
BRYDON. On December 14th, at Pau, Eliza Home, widow of the late James Brydon, M.D., Bombay Artillery.
HARRISON. On October 31st, at Kussolie, North Western Provinces, India, Emilie Louisa, wife of J. B. Harrison, M.D., Surgeon 27th Bengal Native Infantry.
HISLOP. On December 17th, at Stepney, aged 67, Selina, widow of Thomas Hislop, M.D.
*KEAL, J. T., Esq., at Oakham, aged 31, on December 13.
KENDALL. At King's Lynn, on December 14th, aged 7 months, Sarah, infant daughter of *Thomas M. Kendall, Esq.
MCCLURE. On October 17th, at Invercargill, New Zealand, Lydia Le Mesurier, wife of William G. McClure, M.D.
PRIEST. On December 16th, at Waltham Abbey, Essex, aged 12, Arthur A. H., eldest son of Arthur Priest, Esq., Surgeon.

COMPULSORY VACCINATION. On January 1st, 1864, an Act of Parliament will come into force, making it compulsory in Ireland to have all children born after that day vaccinated within six months, under a penalty of ten shillings.

THE MEDICAL ACT. A numerous attended meeting of owners of proprietary medicines was held on Tuesday week, at Anderson's Hotel, Fleet Street, for the purpose of adopting measures for opposing in the ensuing session of Parliament the insertion of clause 57 in the Medical Act. Mr. R. Barclay occupied the chair, and stated that if the General Council of Medical Education succeeded in engraving upon their present Act the contemplated clause, its effect would be to render valueless some £2,000,000 of invested property now regarded as a sort of copyright, and which, in fact, is the sole maintenance of some thousands of persons. A committee was appointed armed with the necessary powers for resisting the passing of the proposed bill, and nearly £3,000 was subscribed towards raising a fund for defraying the expenses.

ALKALI WORKS. On January 1st, an Act passed in the late Session for the more effectual condensation of hydrochloric acid gas in alkali works will take effect. The term "alkali" is to mean every work for the manufacture of alkali, sulphate of soda, or sulphate of potash in which hydrochloric gas is evolved. The object of the statute is to secure the condensation of the gas to the satisfaction of the inspector or subinspector appointed under the Act. If it should appear to the Court before whom any proceeding for the recovery of a penalty is instituted that 95 per cent. at least of the hydrochloric acid gas evolved has not been condensed, a penalty not exceeding £50 will be levied, and for a second offence £100. The owner is to be liable for the offence in the first instance, unless he prove that the offence was committed by some agent without his knowledge, in which case the agent is to be liable. The Board of Trade is to appoint inspectors, and alkali works are to be registered.

THE LIBRARY OF ST. BARTHOLOMEW'S HOSPITAL. Within the last week, Dr. Latham has performed an act of generosity which is so full of suggestion for those who, like him, have retired from the public duties of their profession, that it seems well worthy of being publicly recorded. He has presented to the library of St. Bartholomew's between fifty and sixty volumes of manuscript notes of cases which were under his charge during the seventeen years in which he occupied the post of physician to the hospital. The notes were taken by his clinical clerks, many of whom are medical officers of St. Bartholomew's and other hospitals, whilst others, as Dr. Roupell and Dr. Baly, are now dead. The chief present value, however, of these notes consists in the fact of each volume, as it was finished, having been carried home by Dr. Latham, who just studied it, and then wrote an index to it—a work which must have cost very much time and trouble, but not too much for the object in view, namely, that it should present an accurate epitome of the facts which each volume contained, and make all of them, pathological and practical, of easy reference. It is much to be hoped that the example thus set by Dr. Latham may be followed by others who have the opportunity of doing the like, and remembered also by those who are now doing what he did, so long and faithfully, in the wards of St. Bartholomew's. The value of such records as these—stamped, as they are, by the master's hand—cannot be over-rated; they form a store of knowledge not easily to be exhausted; and will stand a fitting memorial of well done work, long after the generation of those who wrote them has passed away.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's for Fistula and other Diseases of the Rectum, 1.15 P.M.—Samaritan, 2.30 P.M.
TUESDAY....Guy's, 1½ P.M.—Westminster, 2 P.M.
WEDNESDAY...St. Mary's, 1 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.
THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Great Northern, 2 P.M.—London Surgical Home, 2 P.M.—Royal Orthopaedic, 2 P.M.
FRIDAY.....Westminster Ophthalmic, 1.30 P.M.
SATURDAY.....St. Thomas's, 1 P.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 2 P.M.—Lock, Clinical Demonstration and Operations, 1 P.M.—Royal Free, 1.30 P.M.

TO CORRESPONDENTS.

* * All letters and communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen St., Lincoln's Inn Fields, W.C.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

IRIDECTOMY.—The letters of Mr. Critchett, Mr. Bowman, and Mr. J. E. Smith, are unavoidably delayed. They shall appear next week.

CLUB APPOINTMENTS.—SIR: Knowing your willingness at all times to advocate the claims of medical men in your valuable JOURNAL, I send you the facts of a case which has just occurred in my neighbourhood. A branch of the Rational Sick and Burial Association, at their annual meeting held last night, though contrary to law, thought proper to elect two medical men to attend its members, subject to the approval of the Executive Board at Manchester. I therefore declined to act, should the Board sanction such an unjust proceeding. Why should there be two medical men, more than two secretaries or two treasurers, etc.?

I should be glad to know the opinion of my brethren on the point, which must be my apology for thus troubling you.

I am, etc., A POOR CLUB DOCTOR.

COMMUNICATIONS have been received from:—Dr. EDWARD MERVON; Mr. BRODBURST; Mr. T. M. KENDALL; Mr. WILLIAM COOPER; Mr. W. R. COOKE; Dr. GIBSON; Mr. WM. HOWMAN; Dr. F. J. BROWN; Dr. ROUSE; Mr. W. M. BAKER; Mr. J. VASE SOLOMON; Dr. WATERS; Mr. HUMPHREYS; Mr. LAWRENCE; Dr. WOLLASTON; Mr. HUGH ROBINSON; and Mr. J. E. SMITH.

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